

AROUND THE WORLD VIA SIBERIA

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AROUND THE WORLD VIA SIBERIA

CHAPTER I.

THE NATURE AND NEED OF REST—TRAVEL AS A MEANS OF REST
—TRAVELING COMPANIONS—THE PROPOSED JOURNEY—THE
CLIMATE OF CHICAGO—NEW YORK CITY—THE WALDORF-
ASTORIA—THE "BARBAROSSA."

*Oh, what is more sweet than when the mind, set
free from care, lays its burden down, and, when spent
with distant travel, we come back to our home and
rest our limbs on the wished-for bed? This, this
alone, repays such toils as these!—Catullus.*

LABOR's greatest reward is rest. Toil is one of the fruits of man's first disregard of the will of his Creator. "And to Adam he said: Because thou hast hearkened to the voice of thy wife, and hast eaten of the tree whereof I commanded thee that thou shouldst not eat, cursed is the earth in thy work; with labor and toil shalt thou eat thereof all the days of thy life."

This curse has become a common inheritance. None is exempt from it. Wealth may lighten the burden, but cannot escape it. Some toil with their hands, others with their brain, and of the two classes the endurance of the latter is taxed most severely. This curse does not affect all alike. Ambition aggravates it, contentment lightens it. Physical toil brings rest and sleep, severe mental labor only too often becomes the mother of unrest and loss of sleep. The happiest man is he who by the sweat of his face earns

his daily bread, who enjoys his frugal meals, and who spends one-third of his lifetime unconscious of the world he lives in.

The plain, hard couch of the laboring classes bears more refreshing sleep than the luxurious beds of the wealthy. The tiredness following bodily labor is quickly repaired by a night's sleep; the exhaustion incident to mental strain chases away nature's restorer and often requires a long rest to restore the mind to its normal balance and power.

What is rest? What is rest for one is toil for another. The laborer requires physical rest. A healthy man can labor eight or ten hours out of the twenty-four, and if supplied with the necessary quantity and quality of food, he can continue his occupation indefinitely without detriment to his health. A vacation for a laboring man brings often more harm than good. Only too often the time of such vacations is spent in excesses which are a greater tax on health and strength than the occupation from which he seeks relief.

A short vacation spent in travel and reading is desirable and useful for the laboring man and woman, but not a necessity. An overtaxed brain needs rest. What kind of rest? Go to some fashionable seaside or mountain resort? Go where the rising sun disturbs the sleep of the sleepers and night is turned into day? Bad places for a tired brain.

Brains are fatigued by monotony of work. A weary brain must have change of occupation. The subject of nerve strain must direct the activity of his mind into other channels. Travel, particularly an ocean voyage, is the best remedy for brain fatigue. Physical exercise, walking, and driving are excellent adjuncts. The solitude of the wilderness, combined

with fishing and hunting, sports that fatigue the body and rest the brain, are admirably adapted to abstract the mind from the previous monotony of its work.

Rest for the brain means work of a different kind. The professional man, above all others, is entitled to his regular annual vacation. A vacation to him is time well spent. The additional knowledge obtained by travel and observation broadens his mind and prepares him to do more and better work on his return.

Of all professional men, I know of no one who is more in need of rest and recreation than the physician. In the practice of his profession time is never his own. When others rest he works. The responsibility which attends every one of his acts constitutes a strain unknown in the other professions. He is daily brought in contact with pain, suffering, and distress. Every death that occurs in his practice brings up serious thoughts and exercises a depressing influence.

His best services are often rewarded by the grossest ingratitude. The keen competition which exists everywhere forces him to keep pace with the rapidly advancing discoveries, improvements, and innovations of his profession. If the onerous duties to his clients leave any spare hours they are utilized in familiarizing himself with the progress in the art and science of medicine. The physician who has the interests and welfare of his profession at heart chooses a vacation which will secure rest for his weary, troubled brain and at the same time give him an opportunity to increase his knowledge of the various diseases and their treatment.

A leisurely journey from one medical center to another will accomplish this, especially if combined with an ocean voyage. Such an itinerary gives him an opportunity to visit different countries, observe the habits and customs of the people, familiarize himself

with the advantages and methods of education of different institutions, cultivate the acquaintance of men eminent in his profession as authors, teachers, and practitioners, and observe their methods of treatment. All this requires no special mental effort, and yet fills the storehouse of practical knowledge to a wonderful extent.

Physicians who take frequent vacations with such objects in view will always be found in the front rank of their profession. Little side trips to some of the beauties and wonders of nature will add to the enchantment of such trips.

My coming vacation will be spent on such a mission on a large scale. It is my intention to encircle the world from east to west by the way of the Trans-siberian railroad, leaving New York on July 21st on the steamship "Barbarossa," and return to Chicago about Oct. 1st via San Francisco or Vancouver. It will not be a race for time. Much time will be spent in the Orient in the study of diseases indigenous to Siberia, Korea, China, and Japan, as well as the hospitals and other medical institutions of those countries. Military matters will also receive special attention.

*What a great blessing is a friend, with a breast so trusty that thou mayest safely bury all thy secrets in it, whose conscience thou mayest fear less than thine own, who can relieve thy cares by his conversation, thy doubts by his counsels, thy sadness by his good humor, and whose very look gives comfort to thee!—
Seneca.*

A journey of nearly 22,000 miles through different countries and in varying climes is not one of unalloyed pleasure; it has its dangers as well as its enjoyments. It is a source of great comfort and additional pleasure to travel in company with genial friends, more espe-

cially if all have the same object in view. Such is the case with my companions. I consider myself exceedingly fortunate in having with me on this trying journey three friends that I can rely upon under any and all circumstances.

Professor D. R. Brower is one of my colleagues at Rush Medical College, where he occupies the chair of mental and nervous diseases. He is a brilliant lecturer and a most successful teacher. His private practice is large and includes some of the best families in the city. He has now in preparation a text-book on the specialty he so well represents. He is an enthusiastic traveler and has seen much of the world. We made the journey to Moscow to the International Medical Congress in 1897 together and extended our trip to Turkey and Greece. Two years ago he accompanied me to the Sandwich Islands.

Dr. Jacob Frank, of Chicago, is one of our prominent and most successful surgeons, and an original investigator of more than national reputation. He has contributed his good share to the recent innovations in surgery. He is one of the surgeons of the German Hospital and enjoys a large and lucrative practice.

Dr. William M. Mastin, of Mobile, Ala., is the son of the late Claudius H. Mastin, of the same city. His father was one of the ablest and most prominent surgeons in the South. He was one of the charter members of the American Surgical Association and the founder of the Congress of American Physicians and Surgeons.

Dr. Mastin seldom takes a vacation. On two occasions I succeeded in tearing him away from his practice to share with me the pleasures of a few days' hunting in the primitive forests of the South. He needs a prolonged mental rest, and, as he has never

crossed the Atlantic before, much awaits him that will be but a repetition to the remaining members of the party until we reach Moscow.

In 1887 the late Carter H. Harrison, father of the present popular mayor of Chicago, felt the need of rest and recreation after fifteen years of arduous public service. He decided to encircle the world, and he did so from west to east. His inquisitive, restless spirit, however, would not let him rest. His fertile brain and facile pen could neither rest nor rust. He wrote a series of articles to the public press of Chicago which attracted a great deal of attention. His keen powers of observation and knowledge of men and politics enabled him to interest and instruct. On his return the material was utilized in writing that charming book, "A Race with the Sun."

The writer cannot expect to accomplish what the favorite citizen of Chicago did, but he confesses that

An incurable itch of scribbling clings to many, and grows inveterate in their distempered breast.—Juvenalis.

He can only promise to observe, judge, criticize, or praise what he will meet and see in his "Race Against the Sun," and communicate from time to time the results of his experiences.

From Moscow to Yokohama the journey will lead by land and water through countries that so far have seldom been visited by Americans. The people and natural resources of Siberia will be carefully studied. The Orient is now in a state of rapid transition. The recent war between the allied forces and China will furnish interesting material for thought and description. The doors of Korea are now open to strangers, and it is my intention to see all I can of its people, so long secluded from the outside world.

In Japan I will have an opportunity to see with my own eyes the wonderful changes wrought by civilization during the last three decades—the new, wide-awake, powerful Japan. If time permits, a visit will be made to the Philippine Islands on our homeward journey.

I do not seek foreign countries for the purpose of obtaining the advantages of a more congenial climate. In the same latitude and the same elevation Chicago is the most healthful of all great cities in the world. The immense expanse of prairie on three sides and the great Lake Michigan on the fourth are conditions which are calculated to render its climate pleasant and salubrious. Occasionally hot weather will set in during the summer months, but it seldom lasts longer than three days without a respite.

Lake Michigan is a great refrigerator, and the cool breezes which pass over its deep bosom fan the sweating brow of the Chicagoan after sundown when he has been exposed to the heat of the day. With the ozone-charged atmosphere that sweeps the prairies and the cool breezes from Lake Michigan and the magnificent hotels along and near the lake, there is nothing lacking to make Chicago, what it really is, an ideal summer resort. I never could understand how people from the South and East could pass through Chicago and seek relief from heat in the small inland towns in northern Illinois and southern Wisconsin. Waukesha, Oconomowoc, and other small inland towns in southern Wisconsin cannot compare with Chicago as a summer resort.

I regard with a sense of sympathy people who pass by the thousands through our beautiful, healthful, thriving city and who annually make a pilgrimage to those localities with an idea of escaping the trying heat

of the summer months. If these people would select the Auditorium Hotel, its Annex, the Chicago Beach Hotel, the Palmer House, the Great Northern, the Grand Central, and other hotels of smaller size but equally favorably located, they would find that they had made a change for the better. It is to be hoped that our men of means will erect in Chicago and its immediate vicinity on the shore of invigorating Lake Michigan summer hotels for the benefit of the people from the South.

It will be one of the most important means of bringing about closer relationships commercially and socially between the stirring business men of the greatest business city in the world and the charming people of the South. If it were with me simply a matter of climate I would spend my vacation right here, but I make the long journey around the world for an entirely different purpose—to see and learn.

There is no other country in the world in which traveling is done with more comfort and ease than in the United States. Much has been said against our powerful railway organizations, but there is one thing that must be said to their credit, and that is that they provide more comfort for their passengers than any other railway system in the world. The through trains on any of our great railways are models of comfort, even luxury. The system of checking baggage is an ideal one, and one that every stranger from foreign countries soon learns to appreciate. The dining cars are great, modern restaurants on wheels. The sleeping cars are the best in the world. On some of the great lines will be found a smoking car, library, barber shop, bathroom, in fact, everything that you would look for in a first-class hotel.

· In comparing the comforts of travel in the United

- States and what awaits us in eastern Siberia and all through the Orient I am filled with the gravest apprehensions. I have seen much of military life during an active campaign and have made many a hunting trip in the primitive forests of our own and foreign countries, but I expect that our little party will have to undergo privations and discomforts during a long part of our journey that will be attended by conditions of which we are at present fortunately ignorant.

I am sure that when we reach San Francisco we will be in a fit condition to realize keenly what our great railways and steamship companies are doing for the traveling public of our great country.

A few days before our departure from Chicago the weather was sultry, the thermometer ranging from 90° to 100°. Deaths from heat-strokes and prostrations were numerous. Perhaps the highest temperature was reached during the forenoon of July 1st. A violent thunder-storm and a pouring rain made their appearance shortly after midday. We left on the 5:30 p. m. train on the Michigan Southern railroad. Soon after our departure the temperature increased steadily and was but little modified by a thunder-storm and shower at midnight. From Buffalo to Albany the heat was suffocating. The passengers on the crowded train were almost motionless and listless.

An air of supreme silence reigned throughout. The dining car was more for appearance than actual use. Apollinaris and other cooling drinks were in great demand. Soon after leaving Albany we met a violent thunder-storm and a drenching rain, accompanied by high winds from the northeast. This afforded only temporary relief, as the clouds could not keep pace with our fast train. At Albany we received the consoling information that the heat in New York the day

before was unprecedented in the history of the country. There were victims of sunstroke by the hundreds and nearly eighty deaths in one day.

On arrival at New York we were met by Dr. Carl Beck, a prominent surgeon of that city. He brought us the comforting news that the heated term was subsiding, but the subjective feelings did not corroborate this statement. We hastened to the Waldorf-Astoria Hotel with the expectation of finding relief from the excessive heat. We engaged rooms on the tenth floor of this mammoth hotel, but the heat followed us.

We were told on our arrival here that the thermometer had been dancing in the neighborhood of 100° for a number of days and that the number of deaths from heat-stroke on that particular day numbered more than one hundred.

We spent a pleasant half hour that evening at the residence of Dr. Carl Beck, where we met a host of his hospital assistants and professional friends.

The Waldorf-Astoria, in my estimation, is the most wonderful hotel in the world. Its relation to the average hotel is about the same as that of a large city to a country village. It is a truly cosmopolitan affair. You will find there all classes of people—the multi-millionaire side by side with the would-be millionaire. In looking over the crowded café, I, however, received the impression that probably three-fourths of its frequenters had never done a day's work in their life, but were spending freely the money of their well-to-do or rich fathers. It is a magnificent place to rest and sleep, an expensive place to satisfy other personal wants.

It is the kind of hotel Chicago must have in the near future to supply the demands of a critical traveling public. Within two or three blocks from this



RIVER VIEW OF BREMEN.

great hotel can be found restaurants that will answer the expectations of the hungry traveler. If the weather ever takes vengeance on New York it does so in a marked degree during all seasons of the year. I have never suffered more from heat during all my travels—and they have been many and widespread—than in New York, Washington, and Philadelphia. The thermometer in Chicago never tampers with the people to the same extent, and that is why I can never cease recommending to the whole world, and especially to the citizens of the United States, Chicago as an ideal health resort. I do not envy the millionaires who made their money in Chicago and are now spending it in New York purely to enjoy life and gain the favors of the select Four Hundred. They are paying high prices for what they get.

After a somewhat trying journey from Chicago to New York, we have before us the pleasant sea voyage to Bremen. We have met our traveling companion, Dr. William M. Mastin, and the party will be complete when we reach Berlin, where Dr. Jacob Frank is awaiting us.

The "Barbarossa" is getting up steam on the Hoboken side, and we will board it at the appointed time. The ship will be crowded, as every available space was secured weeks ahead. When I ascend the bridge on July 4th at 11 a. m., I will whisper to all of my friends on this side of the Atlantic:

And the tongue said with low murmurs, "Farewell!"—Ovidius,

CHAPTER II.

GERMANS AND THE FATHERLAND—GERMAN OFFICIALS—THE ARMY—THE KAISER—EDUCATION IN GERMANY—THE NOBILITY—THE MUSTACHE—BREMEN TO BERLIN—THE CAPITAL AND ITS UNIVERSITY.

But where thou considereth everything carefully and thoughtfully, of all societies none is more important, none more dear than that which unites us with the commonwealth. Our parents, children, relations, and neighbors are dear, but our fatherland embraces the whole round of these endearments, in defense of which who would not dare to die if only he would assist it?

THE above quotation from Cicero expresses the feelings of a large, happy group of Germans when, on July 15th, they descended the bridge from the "Barbarossa" which connected America with Germany, and again stood upon the soil of their dear fatherland. What scenes of hearty handshaking and passionate kissing! It was such a welcome as only a German can give to a German. Hundreds of expectant relatives and friends had gathered at the dock and were impatiently awaiting the hour—yes, the minute—when they should meet the absent ones from distant America. Many a heart beat violently and many hot tears of joy were shed when the long-looked-for moment came to greet and welcome relatives and friends.

Our German passengers represented the best class of our German immigrants, our best citizens, men who left their fatherland when young and sought our friendly shore with a firm determination to establish happy homes by honest toil. They succeeded, and



INTERIOR OF RATHSKELLER, BREMEN.

after many years enjoyed the greatest of all pleasures—a visit to the home of their birth, a visit to their relatives and friends.

A German always remains a German; he respects and loves his fatherland, although isolated and separated from it by boundless oceans and vast continents. A German heart always remains true to the country where it first commenced to beat until it is silenced by death. As a rule, to which there are few exceptions, a man who is loyal to the country of his birth will be loyal to the country of his adoption.

Patriotism begets patriotism and adapts itself to every and all environments. A sense of duty and obedience is a germ that flourishes on every soil; distance and climate have no influence in retarding its germination, growth, and fructification. Its fruit is the same everywhere—obedience to law and order.

A man who lacks love for his native country is seldom, if ever, inspired with patriotism in the land of his adoption. Our best crop of citizens of foreign birth comes from countries where laws are made to be respected and obeyed. After their visit these Germans will return to their American homes, if they could be made so, better Americans.

The moment the traveler steps on German soil he is impressed with a sense of durability, stability, and permanence by everything he sees and hears. The people are strong, their clothing plain and substantial, the buildings solid, the implements perhaps somewhat clumsy but durable, streets and sidewalks smooth and hard, vehicles strong, the products of the soil nutritious, and even the domestic animals share in this one characteristic feature that typifies Germany everywhere and in everything—durability.

The next thing that appeals to the attention of the

visitor from foreign lands is the manner in which the laws of the country are executed and obeyed.

Unquestionably Germany has the most perfect police system in the world. Every policeman can lay claim to an education and training necessary to become efficient in dealing intelligently and finally with refractory elements. The appearance and dignified conduct of the German policeman inspire respect as well as confidence. Treat him in a manner that becomes a representative of law and order and you will always find him a gentleman—not only willing but anxious to serve you in his capacity as a public officer.

Much has been said regarding the arrogance of the railway employes, both in the offices and on the trains. This accusation is unfounded, if the stranger extends to them the courtesies due to a representative of this branch of the government service. What, however, attracts the attention of the stranger more than anything else when he enters Germany is the military arm of the government.

The pride of Germany is its well-equipped, well-drilled army. The German soldier is a soldier in every sense of the word—a soldier from head to foot; when in uniform he never forgets that he is a soldier. His uniform is scrupulously clean, his bearing soldierly, his step a military step wherever he goes. The power of the German army is felt alike whether you look at an individual soldier, a squad, a regiment, or a large body of troops.

Well may Germany feel proud of her army. Its heroic deeds in 1870 remain fresh in the memory of the present generation. It reunited Germany, regained lost possessions, established a new empire, and more than all this it has brought before the world the importance of armed neutrality in maintaining peace.

For the repose of nations cannot be maintained without arms, arms without pay, nor pay without taxes.—Tacitus.

Germany has held, and will continue to hold, let us hope, the balance between peace and war for an indefinite period of time. It is certain that no material changes in the geography of Europe can be made without the intervention of the German power. For the present Germany is contented with her European possessions, and when the time comes to divide and absorb existing weak monarchies she will make sure of her share of the spoils. The world, and even Germany herself, has never fully appreciated what was accomplished for Europe by the Franco-Russian war, which curtailed the influence of a less desirable rival power and united the countries of one language and common interests into a great empire which has done so much in the extension of civilization and in the promotion of science.

It is to the credit of Germany that hardly a square foot of usable soil is left awaiting the plow. By hard work and proper care the German soil has been maintained in a productive condition, and has annually rewarded the toil of the laborer.

Germany never was in a more prosperous condition than it is to-day. It ranks third as a manufacturing country. Its exports are increasing annually, as well as its population—the best possible proofs that it has a good government. Take away the host of uniformed officials and the large standing army, and the visitor would hardly know that the country is under the rule of a monarchy. As we are passing through Germany we are charmed by the gardens, orchards, fields, and meadows, clothed in beautiful green, and replete with promise of a rich harvest.

When Emperor Frederick, after a rule of only three months, succumbed to one of the most painful and distressing of all fatal diseases, his youthful son William inherited the crown. The German people and the whole world witnessed the unexpected change with a keen sense of apprehension. It was well known that Prince Bismarck, the greatest of all German statesmen, past and present, had virtually ruled the new empire since its foundation. A clash between the energetic, ambitious young Emperor and the Iron Chancellor was expected. The suspense did not last long. The young Emperor ascended the throne with a firm determination to rule and not to be ruled. He felt that he was competent and well prepared to guide the ship of state without a guardian.

His rule soon demonstrated that he was Emperor not only in name but in reality. He made no mistake in assuming the enormous responsibility he did. He has ruled wisely and well since.

It was a source of great gratification to the people of Germany that before the death of Prince Bismarck the most friendly relations were established between him and the Emperor.

The Emperor is a genuine Hohenzollern, a true German. From his infancy he received the necessary training to prepare him for the exalted office that awaited him. When the call came to serve his country he was ready to assume and discharge the arduous duties of ruler. His reign has been one of uninterrupted success. His country is prosperous and commands at the present time the highest respect among all civilized nations; his people are happy and have learned to admire and love him. Emperor William is often misunderstood. He has been accredited with being too ambitious for war, when in reality every act



BISMARCK MONUMENT IN THE TIER GARDEN.

on his part has invariably been to maintain peace. He has been called eccentric, when in fact his very eccentricities are evidences of the greatness of his genius. He has been charged with egotism, when what might appear in that light by word or deed have been faithful efforts to uphold to his people and the outside world the glory of his army and the greatness of his country.

Emperor William is a patriot, and speaks and acts as such. He is unquestionably the greatest of all European monarchs at the present time. He is a genius. He is a linguist, a scholar, an artist, an architect, a sailor, a soldier, a musician, and above all, an able, earnest statesman.

It has recently been stated that he is a convert to Christian Science. No more absurd accusation could be made. His religious convictions are well grounded. He is familiar with the Scripture, and daily practices its teachings.

Let me say to the German people:

That man is deceived who thinks it slavery to live under a noble prince. Liberty never appears in a more gracious form than under a pious prince.

As long as nations will consent to be governed by a monarch Germany should be happy to be ruled by a prince like Emperor William. He will stand for peace as long as such a policy is compatible with the prosperity of his country and the welfare and happiness of his people, and when he does draw the sword he will be found at the head of his army in the thickest of the fight, leading his host from victory to victory.

Laying all prejudices and national pride aside, there are few indeed who would not readily admit that Germany to-day is the center of science. The many well-equipped universities, all under direct govern-

ment control, have made it so. The liberality of the government to its higher educational institutions is phenomenal. Foreign nations have been benefited by its liberality.

Students from foreign lands in large numbers attend its universities. In this connection I will only speak of what the German universities have done toward the advancement of the art and science of medicine.

It is in speaking of this subject that we have a clear demonstration of the truth of the saying: "The star of empire westward takes its course." In ancient times Asia was the cradle of medicine. From Asia it was removed successively in the course of time to Greece, Italy, France, England, and Scotland, but at the present time it is in Germany, where it will remain until, within a very few years, indeed, the universities of the United States will be the center of attraction for all students seeking the best that can be offered in any way of advanced medical teaching. A century ago recent graduates from different countries journeyed to Paris and London to finish their medical education. Our medical students during colonial times were obliged to go to London or Edinburg to obtain a knowledge of the healing art. Rokitansky, Hyrtl, and Billroth made Vienna the center of medical education.

With the death of this famous triumvirate Vienna has lost its luster as a Mecca for medical students, and to-day Berlin has taken its place and will hold it until we in America can offer superior advantages, when the stream of students and recent graduates will be directed toward our shores.

The German teacher in all branches of the arts and sciences is known for his thoroughness. What the German does, he always does well. The German student

always remains a student, penetrating deeper and deeper into the subject that interests him.

It is the thoroughness with which original investigations are made that has made German medical literature reliable, the foundation of medical literature in all countries.

I have never advised young men who intend to study medicine to go to Germany for this purpose. There is no need for this, as many of our medical colleges are sufficiently well equipped and present all the facilities for obtaining a thorough medical education. Then, too, the contact with German medical students is not always wholesome for the American. Neither do I encourage the recent graduates of an American college to visit foreign medical schools.

The American graduate should practice his profession at least five years. Such an experience will give him an opportunity to make practical use of his knowledge and ascertain what he is lacking and in what particular branch of his profession he is most interested. This is the opportune time to search for additional light by pilgrimages to foreign, particularly German, universities.

We owe much to Germany and its educational institutions, but it will not be long before we will be in a position to return the borrowed capital with a liberal rate of interest.

It is significant that Emperor William is doing all he can to increase and improve the efficiency of his fighting forces on the sea. He knows that the great battles in the future will be fought on the sea. It is generally considered that his army is the best equipped and best drilled in the world. Soldiering is a part of the education of every able-bodied young German.

The stringency of the German military discipline

has become almost proverbial, but it is necessary to make a soldier. It is here that the raw recruit learns obedience, punctuality, and manners becoming a gentleman and a soldier. The German army is always on a war footing. It is ready at a moment's notice to take the field. It was the preparedness of the German army that made it possible in three months to reach and take Paris in 1870. If the same occasion should present itself to-day the same object would be accomplished in a short time. The money expended by Germany in maintaining its splendid army has been well invested. It has contributed much to the long maintenance of peace. It constitutes the strongest argument to observe the well-meant advice, "hands off."

It is bad enough when a nation submits, either as a matter of choice or stern necessity, to the rule of a monarch who comes in power, not by merit, but by virtue of inheritance. Undesirable as this may appear to a citizen of a free country, it does not compare with the nuisance of a petit nobility that surrounds the central figure like so many satellites with no vocation in life except to spend the money that by right belongs to the people. The small nobility has its different grades, from prince down to persons who by merit or by political influence have been privileged to write the little word "von" in front of their family name. This "von" does not cost anything, but it is highly appreciated by those who have thus been recognized by the crown.

It is nauseating for an American who is always anxious for news to find when he looks through any of the little German newspapers that a column or more is devoted to inform the public where these nobilities are and what they are doing, while only a few lines, if any, are given to news from the United States.



THE EMPRESS OF GERMANY.

' What is this aristocracy good for? These noble gentlemen and gentlewomen work not, weave not, spin not. If the visiting stranger has any desire or opportunity to come in contact with this favored class, let him study titles before he treads on dangerous ground. Rank and title must be recognized by the plebeian American when he is in the presence of persons who have any claim to either, otherwise he will have reason to regret his ignorance or his imprudence. How easy the much-traveled American feels when he returns to his country and can limit himself in his intercourse with people to the three inherited democratic titles, Mr., Mrs., and Miss.

It was an unfortunate hour for the adult male population of Germany when the young Emperor discarded the fashions of forefathers in training the faithful mustache. His grandfather's face was made graceful and lovely by the plain, drooping mustache and handsome burnsides. His father was distinguished for his full, flowing beard and untrimmed mustache. The young Emperor introduced a decided change by training his mustache in an upward direction, imitating the fashion heretofore limited almost entirely to French officers.

The moment this was done it became the accepted fashion among the military, as well as the civilians. The man who invented the mustache trainer must have made a fortune out of his work. It is a ridiculous sight when one pays attention to this part of men's faces. It costs time and money to imitate even this small part of the many of the Emperor's fads.

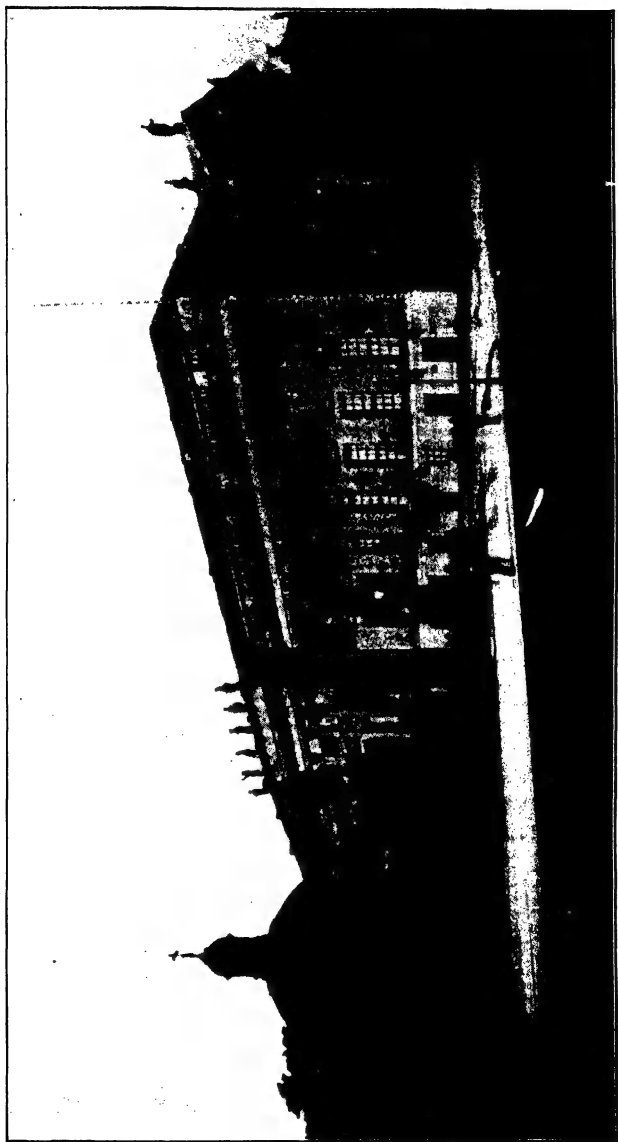
This chapter, however, should have been devoted more especially to our trip through Germany. Owing to low tide we landed at Bremerhaven on a lighter at 6 p.m. July 15th. The custom-house officers were leni-

ent in the examination of our baggage, so we could proceed without much loss of time to Bremen, where we sought the shelter of the "Kaiserhof," a small, new hotel opposite the station. We arrived next day at Berlin at 4 p. m., where we met our companion, Dr. Jacob Frank, who had preceded us. Two things of interest to the American tourist were observed on the trip from Bremen to Berlin. In the washroom of our car I noticed a slot machine, on the face of which was printed this legend: "Throw in ten pfennig and you will receive in turn a towel, soap, and toilet paper." The experiment was made and the machine fulfilled its promise—a hint to the managers of some of the railways in the South.

Soon after we left Bremen the conductor made his round through the cars and took orders for a warm lunch, which we were to expect at Sendal station. When we arrived at this station every person who gave the order received on a tray in his coupe a warm lunch, which consisted of soup, two kinds of meat, stewed cranberries, and fresh gooseberries, all for two marks. At the next station the tray was removed and returned. I considered this an improvement upon the American "twenty minutes for dinner."

We left Berlin at 11:35 p. m. on July 17th for Königsberg, where we arrived at 8:45 a. m. the next day. We spent the day visiting the many interesting points of this old city and left for St. Petersburg in the evening.

Berlin has at present 1,500,000 inhabitants. It is more like Paris than old Berlin. Most of the streets are paved with asphalt and are kept scrupulously clean. Many buildings are in the course of construction, showing the rapid growth of the city. The country between Berlin and Königsberg is under high



EMPEROR'S PALACE.

cultivation and the waving fields of grain were the scenes of busy harvesting. The sickle has given way to the scythe and occasionally a McCormick reaper may be seen, a good testimony for the United States as a manufacturing place for agricultural implements. Königsberg has 150,000 inhabitants. The carpenters and masons are busy erecting new buildings and many of the streets are in confusion, undergoing substantial improvements and repairs. The center of attraction for the visiting stranger is the old castle built in 1256, which is now being repaired and remodeled, to be occupied by the Emperor and his family during the promised visit next year.

The university is in a flourishing condition. In the surgical clinic I found my countryman and old friend, Professor Garré, who came here two months ago to fill the chair of surgery made vacant by the resignation of Professor von Eiselsberg. During our visit he performed a delicate operation for tuberculosis of the ankle joint with the utmost skill, and many points elicited by a visit to his surgical wards and laboratory will prove of great value in our future work. A whole division of the German army is stationed here and we had an opportunity to witness much of the practical work of the soldier.

CHAPTER III.

VIRBALLEN—THE RUSSIAN LANGUAGE—PASSPORTS—AGRICULTURE—FORESTRY—ST. PETERSBURG—THE CZAR AND HIS GOVERNMENT—THE ARMY AND NAVY—MOSCOW—NAPOLEON I.

The administration of public affairs requires a stern heart.—Claudianus.

WHEN we think of Russia we almost instinctively imagine a mental picture representing men and women deeply wrapped in fur, jingling of sleigh-bells, and merry skaters on the icy bosom of the restless Neva. It is now midsummer, and although the heat is excessive the natives have not abandoned heavy clothing.

As we passed through the western part of Russia to-day with the thermometer above 90° Fahrenheit, we saw the military men wear their heavy overcoats and the peasants at work in the fields clothed in a long linen coat of a dull gray color, or, what was more common, a red cotton blouse. In either event the garment was confined to the body with the ever-present Russian belt of various designs.

We have now reached the point farthest north in our journey around the world, St. Petersburg. Last evening (July 19th) we entered the land of the Muscovites at 11:10 p. m. As the train rolled into the Russian border station Virballen, the name of the station was announced in a threatening voice, which was more a cause of surprise than a source of information. I had looked at the name of the station on the map and in the time-tables and expected that it would be pronounced in the way it is spelled, but when the Russian

pronunciation was made, I am willing to confess, somewhat unexpectedly, it brought up thoughts of Ivan the Terrible. Any Chicago schoolboy would pronounce this word as it is written, Vir-bal-len, but imagine our surprise when the one who made the announcement ignored the vowels entirely and took revenge on the consonants, imitating the voice of the snare drum, mutilating the euphonious name of the station into Vrbln. It takes a Russian to accomplish such a task.

The more I listen to the Russian language the more I am convinced that the vowels are more ornamental than useful, at any rate they are drowned in the racket made by the consonants. The little Russian children have reason to be thankful in learning one of the most difficult of all languages without an effort, and I have the profoundest respect for the Russian teachers who teach them how to write it.

To prove how difficult it is to acquire even a fragmentary knowledge of the Russian language, I have only to relate the experience of my friend and companion, Professor Brower. For weeks before our departure he labored with the Russian alphabet, and informed me with a justifiable sense of pride that he felt competent to at least read the business and street signs. He also thought he had a vocabulary that would enable us to obtain the most necessary things without an interpreter. It did not take him long to be undeceived. The advertisements and announcements in the waiting-rooms of the Virballen station sufficed to prove that all his labor had been in vain. He is now content with one word, and when he wants tea he says "chi," and he gets it, but when it comes to settle the bill he hands over a coin that will more than cover the price of the tea, consequently the one

who waits on him is satisfied that he or she has been serving a Muscovite.

The Russian language as pronounced by the natives requires a jaw, tongue, and facial muscles beyond the possession of the ordinary man or even woman.

It is a little strange, too, that this Virballen, opposite the German station Edykuhnen, is more Russian than St. Petersburg itself, although the officials must have daily more or less intercourse with their German neighbors. Whether this is real or affected, I do not know, but little knowledge of the German tongue was exhibited here.

The first thing asked for at the station was the passport, and it was fortunate that all of us were supplied with such a document, properly vised by the Russian consul in Chicago.

People who think they can enter the Czar's dominions without a passport will change their views when they reach Virballen, or any other border station. The custom-house formalities were gone through with without any difficulty. Unlike our custom-house officers, the Russian officials were anxious not to cause any more trouble than was absolutely necessary. One thing they were more anxious about than any other was firearms. In our case such inquiry was natural, as every American is supposed to carry a revolver. This suspicion, as a rule, is only too well founded. My revolver, however, wrapped in stockings in the lowest compartment of the valise, remained undisturbed, and may be of service when we reach the wilds of Siberia and the interior of Korea.

We took advantage of the comfort of the somewhat primitive sleeping car and left the border station for St. Petersburg at 1 a. m. July 19th and reached our destination at 7:10 p. m. the same day. This part of



THE CZAR AND CZARINA.

the journey was somewhat monotonous. Between Bremen and St. Petersburg is a vast plain, as well as the entire European Russia, where no elevation above the level of the sea higher than Washington's monument can be found. In Russia between its German border and the capital city the surface is undulating.

A decided change for the worse in the appearance of the crops was noticed as soon as we left Germany, a change undoubtedly due more to less skill in farming than to a poorer soil. The peasants all along the line were busy in harvesting wheat and rye and in cutting and curing hay. The other principal agricultural products are millet, beans, oats, and potatoes. The peasants live in hamlets of neat little log houses. Women were doing all kinds of hard work, and I saw more than one manipulating the scythe as well as her husband. Cattle raising is an important and remunerative occupation in this part of the country.

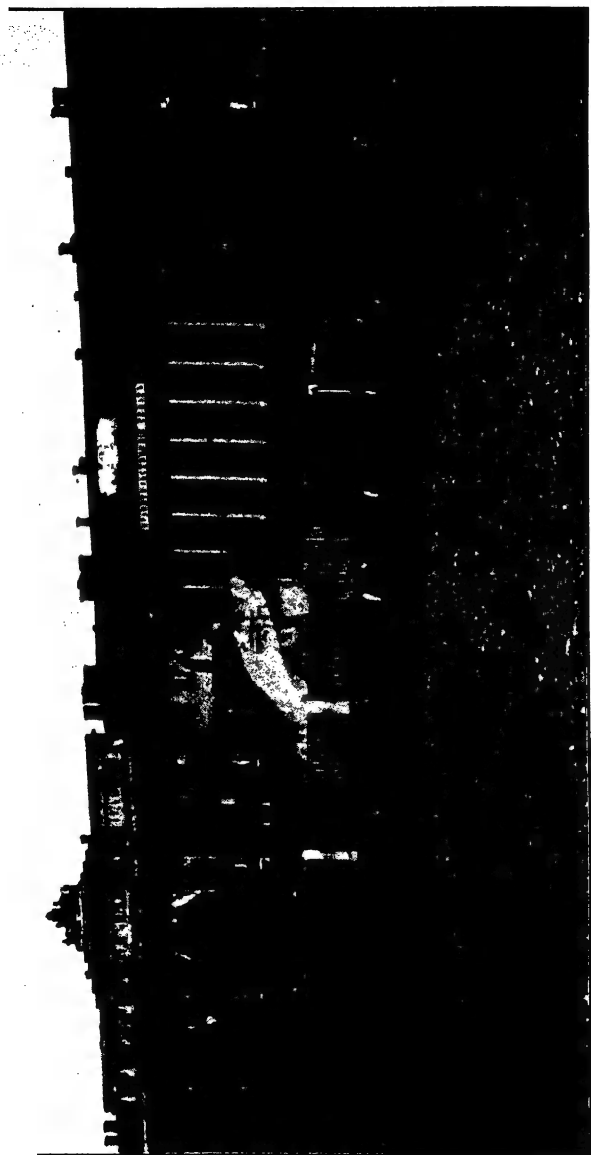
The northern part of Europe, especially Germany and Russia, furnishes an instructive object-lesson to the American tourist in the way of forest preservation. Our country has been stripped of its majestic forests until many parts have become mere deserts. The timber demon has penetrated the most inaccessible regions, and the murderous ax of the woodsman has followed his footsteps and destroyed the forests and robbed the people of nature's protection against drought, inundations, and cyclones. With the disappearance of our forests the game was extinguished in the same unmerciful manner.

In Germany and Russia the forests are under government control, and when a tree is sacrificed it has to be replaced by another one. Why our government does not take vigorous measures in replanting trees and in protecting the forests that still remain has

always been an enigma to me. The forests are the real gold mines of every country, destroy them and the wanton sacrifice will not escape punishment. The state and general government should take the necessary steps to protect the timber that is left and to replace to the desired extent what has been lost. Much could be accomplished in this direction by planting trees on both sides of our public highways, which would furnish protection against heat in the summer and against snow and cold during the winter. If this were generally done in a few years sections of our country that are now suffering from drought and cyclones would become comparatively free from such disastrous visitations. Special schools for forestry should be established in each state and men fully qualified should be placed in charge of our forest interests.

The forests along the line of the Virballen-St. Petersburg railway are made up largely of fir and birch in varying proportions, and the prevailing shrub was the alder. All of the wild flowers that I could see could be duplicated in the prairies of Illinois in the vicinity of Chicago. The lovely marguerite was particularly noticeable by its abundance and beauty. The Virginia creeper (*ampelx quinquefolia*) is cultivated at every station.

We arrived at St. Petersburg at 7:10 p. m., and made the Hotel de France our headquarters. We found that in St. Petersburg the German language is known better than any other of the foreign languages. It is a sign of the times that the French language is rapidly losing ground everywhere outside of the French border. The French language was the language of general usage so long as France was the leader of nations. With the defeat of France by Germany



STATUE OF PETER THE GREAT, ST. PETERSBURG.

the French language has lost prestige. German and English are now the predominating languages in the greater part of the civilized world, and twenty-five years from now the business language of the world will be the English.

St. Petersburg has now nearly 1,500,000 inhabitants. It is a beautiful city bisected by the Neva. It presents in all its aspects a typical and flourishing capital city. Its business streets are broad and well paved. The materials used for the pavements are stone and wood. The wood pavements are made with much more care than in our country, and on that account they are more durable. The blocks of fir wood are cut on six sides, and they are so accurately fitted together that no sand or gravel is used.

At the German border we lost sight of the twisted, curled, deformed mustache, which now gave way to the bushy, full beard of the Russians. It was a source of great relief to witness this sudden change in the dressing of the beard. The manly beard of the Russians is a strong reminder of strength and personality. The Czar was wise when he made no change in dressing his beard when he ascended the throne. In this matter he simply followed the fashion of his recent predecessors, and I am sure his subjects appreciated his fidelity to the past fashion. If he, however, had been as indiscreet as his contemporary, Emperor William, he would not have been imitated to the same extent.

Like Emperor William, the Czar of Russia came into power as a puny man. Much has been said regarding the cruelty of the Russian rulers. Mr. George Kennan drew a pen picture of the Siberian cruelty that is fresh in the memory of all who read his sensational book. That book has done much toward rendering travel in Russia more difficult and accom-

plished nothing in alleviating real or imaginary wrongs. In many things the Russian government is an ideal one. It is always easy to criticize; it is more difficult to adjust. Slavery was abolished more than fifty years ago. Religious freedom is assured everywhere. The law-abiding Russian citizen has nothing to fear. It must be remembered that a large part of the inhabitants of Russia, particularly of Asiatic Russia, is still in semi-barbaric state.

It is a source of surprise that in the management of state affairs in the government of such diverse elements there has been no more disturbance than has actually taken place. The present Czar has done all in his power to better the conditions of his millions of subjects and to maintain international peace. He has not hesitated in enforcing law and order, and in this he is supported to a unit by the best elements of the population. Disorderly, law-ignoring subjects can be found in any community, and I doubt if they are more numerous in Russia than in any other country. We may well apply to the Czar Seneca's words:

Even as lightning causes danger to few, but fear to all, so the punishments of mighty potentates are more full of fear than of evil, and not without reason. For in him that has power, all men consider not what he has done, but what he may do.

The government of Russia makes better provision for the sick, orphans, and the aged than any other country in the world. The orphan asylum in Moscow is the finest institution of that kind in the world. The Russian universities are equal to those of any other country, Germany not excepted. The hospitals in all the larger cities stand in the first rank of their kind.

The best proof of the humane tendencies of the present Czar is the fact that he was the one who first



THE CZAR'S CHILDREN TAKING AN OUTING.

suggested a conference of delegates of all civilized nations of the world to settle international difficulties by arbitration instead of by war. This suggestion was made not from a sense of fear, as he has at his disposal the largest army in the world, well equipped and ready to take the field at a moment's notice.

Czar Nicholas will advocate peace as long as he can do so consistently with the honor and interests of his great country. The Czar is fully aware of the fact that Russia has accomplished more by diplomacy than by war, and this policy will be continued in the future and will eventually lead to a firm foothold on the Asiatic Pacific coast. The Russian statesmen have laid their plans quietly and wisely, and at no distant day their object will be gained without bloodshed. I am informed that the Czarina has a great influence over her royal husband and that she is of great assistance to him in the performance of his executive duties. Although a German by birth and education, by good tact she has endeared herself to the Russian people.

The Russian army to the outside world is an unknown power. In visiting any of the larger cities it is apparent that this branch of the government service is not idle, as the public places and streets are crowded with officers and soldiers. The average Russian soldier is the embodiment of courage and strength. I have seen considerable of the drilling of recruits and seasoned soldiers, and no one can witness these exercises without becoming convinced of the thoroughness with which the work is done. All of the troops are supplied with firearms of the most modern construction.

The fighting capacity of the Russian navy is well known—it is the third naval power in the world. Russia does not plan war, but where war becomes a

necessity she will be found well prepared. The Russian soldier thrives on the necessities of life, and is almost proverbial for his endurance. A large percentage of the Russian population is in a semi-barbaric state, and, with the wild tribes of Siberia, would furnish the best material for forced marching and desperate fighting. The European powers will do well not to arouse the anger of the Russian bear, as, if this were done, it is not difficult to foretell what the result would be on the side of Russia.

At present Russia has no intentions of enlarging her dominion in Europe. She, however, will not rest until she has more free communication with the Pacific Ocean, and in this she will, in all probability, succeed without resorting to arms. The stranger who studies military matters in Russia is impressed with the fidelity of the government to its aged officers. Many of the officers in active service are far beyond the age limit for retirement set by the United States. Undoubtedly this has its advantages as well as disadvantages. Some men are young at sixty-four; others should be retired for physical reasons before the age of fifty.

The trip from St. Petersburg to Moscow is made by rail in twelve hours and a half. We left the former city at 8 p. m. July 20th, and arrived at Moscow at 8:45 a. m. the following day. The sleeper we occupied was a primitive affair. We bought three tickets, one to cover the fare, the second included sleeping car privileges, and the third was to secure for us the necessary bed clothes.

When bedtime came one of the guards turned the back of the seat upward upon hinges and converted it into a shelf-like bed. This primitive bed was then supplied with two sheets and a small, hard pillow. As



TYPES OF RUSSIAN OFFICERS.

the evening was cool we intimated by sign language the absence of blankets, but this made no impression. We had evidently received all our extra tickets called for, and had to rely on our overcoats to fill in the balance. The coupe for four had one small window and was lighted by a single candle. It required more than an ordinary effort to secure a towel for the wash-room. This route touches only a few small cities, and passes through a level, monotonous country where forests and farms alternate.

The day we spent in Moscow, Sunday, was a perfect one. The weather was cool, the blue sky cloudless. We selected the Hotel du Bazar Slave as our resting place, and subsequent experience showed that we had made no mistake. In the forenoon we witnessed an imposing church procession. More than a hundred gilded banners rested against the outside walls of the church during service and a dense crowd accumulated, all of the men bareheaded. The tolling of the church bells announced the close of the service and the beginning of the procession. Each one of the banners was carried by three stalwart men, and their weight could be approximately estimated by the heroic efforts of the men whenever a breeze threatened to disturb their equilibrium. All of the banners were metallic, gilded with gold, and representing the Virgin, Christ, and the different saints. The last part of the large procession was composed of priests of various ranks, with long hair and flowing beards, some bareheaded, others with priestly headgear. A squad of mounted police cleared a way for the procession through the dense mass of humanity. The spectacle was an imposing one, and the devout bearing of the assembled multitude demonstrated the simple, child-like faith of the Russian people.

Four years ago, when in attendance upon the International Medical Congress, I spent a week in this city, the most Russian of all Russian cities. Since that time the city has been much increased in size, and many improvements have been made. Many new buildings are now under way, and among them several government and educational institutions. An interesting feature is the Labor Square, where men who have no employment congregate in search of something to do.

On this particular day the whole square and adjacent sidewalks were crowded with men of all ages, whose appearance indicated that they had been idle a long time.

An amusing incident occurred here. Professor Brower is a snap shot fiend. His chance for an interesting picture had come. A man past middle life, in ragged clothes, was dragging a diminutive two-wheeled cart loaded with fresh hay up an incline, followed by two little boys behind the cart, probably his sons. Our carriage halted and the man was requested to do the same. Out jumped the professor, and as he adjusted his camera one of the little boys ran and yelled like an Indian, and soon disappeared in the crowd. His little brother followed his example. It required kopeks and the kindly interference of the guide and an obliging policeman to bring the little fellows to terms. That picture will show two frightened little Russians pacified by persuasion and copper.

Moscow has a Sunday market for the poor. The enormous crowd which accumulated here did business on a small scale. All kinds of cheap wares were exhibited and sold. It seemed to be the right thing for Moscow. It is strange that in cities the size of St. Petersburg and Moscow most of the street railways are



COUNT TOLSTOI

operated by horse power. A right of way for electric railways would be a profitable investment.

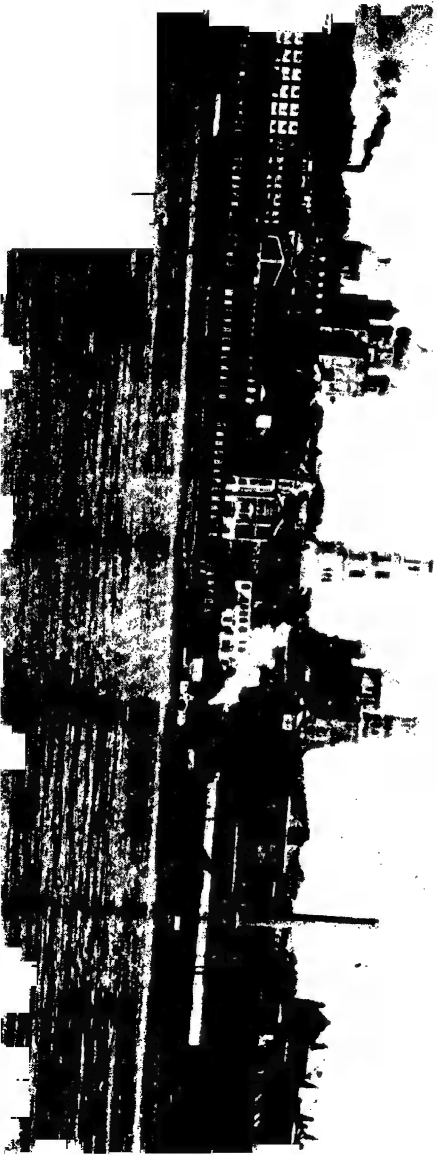
What memories cling about Sparrow Hill since it was the headquarters of Napoleon's army during the siege of Moscow!

Sparrow Hill lies west of Moscow about four miles, and is an elevation from which the entire city can be viewed, with the tortuous Moscow River between. Where Napoleon stood now stands a first-class restaurant, which is visited by every tourist and which is a popular resort for the people of Moscow. It can be reached by a dummy line. Here the greatest soldier the world ever saw made his plans to reach the goal of his ambition. To bring a large army and hundreds of pieces of artillery from France to Moscow in those days was in itself a strategic feat that stands unparalleled in the history of the world. His very presence so near Moscow brought terror and consternation. He wanted another crown, but the coveted prize escaped his greedy hands. "Moscow! Moscow!" was shouted in his camp and was re-echoed from Sparrow Hill.

To his astonishment he met with no resistance. The Russian army evacuated the city, and with it left all who were able to leave or could be removed. The commander of the Russian army decided to fight his invincible foe, not with the sword, but with the icy element. To gain his object he was willing to sacrifice what was near and dear to every Russian—the sacred city of Moscow. He laid his plans only too well. Napoleon entered the deserted city unmolested, slept in the Kremlin, only to awake next morning to find the city a sea of fire. Cut off from all supplies, facing an arctic winter, he retreated in the direction of France, heart-broken, followed by a discouraged,

famished army. This was his first crushing defeat and the forerunner of the subsequent ill-luck which finally culminated in his captivity. The ultimate fate of this great soldier, conqueror, and ruler only proves the correctness of the words of Quintus Curtius Rufus:

The fashions of human affairs are short and changeable, and fortune never remains long indulgent to men.



CHAPTER IV.

TREES, THEIR VIRTUES AND VICES—UNIFORMS—CHURCHES—
RELIGIOUS SERVICES—THE SIGN LANGUAGE—THE PEASANT
—TOPOGRAPHY—SSAMARA AND ITS HOSPITAL.

*There is society in the pathless wood,
There is companionship in the trackless sea,
With music in its roar;
Not that I love man less
But nature more.—Byron.*

LIFE in a large city is always more or less artificial, never entirely natural. This is particularly true of the life of professional men. Men who carry the heaviest burdens of others on their shoulders, who must think and act for their clients, are the men who, in search of rest and relaxation, should shun large cities and seek what they need in the solitude of the woods, in the mountains, or at the seashore, where newspapers and telegraph are inaccessible, and enter with heart and soul in communion with nature. The busy mind is never at rest, and when fatigued by arduous mental work it must be directed into an entirely different, into a gentler, current. I know of nothing more soothing to a tired brain than a study of the wonderful mysteries revealed by nature on every side.

No painter has ever succeeded in producing on canvas the pictures painted on the sky by the rising and setting sun. No instrument nor musician can imitate to perfection the melodies of our winged songsters. The babbling of the rivulets, the hum of the busy insects, the music in the tree-tops quiet the excited, irritable nerves better than drugs. The woods, the

natural park, the flowers, nature's bouquet, are worthy objects of study for every inquiring mind. The monotony of the ripple and the roaring of the waves are hypnotic in their effects. The growing blade, the expanding bud of spring-time remind us of our youth, the flowers and leaves of developed manhood, and the golden, waving fields of grain of declining age. The silvery streaks of lightning and the peals of thunder direct our thoughts toward the Creator of all things in heaven and on earth.

Indeed, he who has eyes to see, ears to hear, and a heart to appreciate the wonders of nature is made happy and cheerful by exchanging the busy, artificial city life for a quiet rest in some remote place, away from noise, away from temptation, away from all sources of irritation and discomfiture. The blessings of a quiet country life are well described in the following quotation:

My humble desires are satisfied with a quiet fire-side, a house that is not spoiled by smoke, a living spring, and the natural green sod. May these be mine—a well-fed slave, a wife not overlearned, nights with sleep, days without strife.—Martial.

Until we left Moscow our time during the short stops was spent in large cities—New York, Bremen, Berlin, Königsberg, and St. Petersburg. I was glad when the time came to leave Moscow, for two reasons: As far as Moscow I only followed an old path that was familiar to me, and I was longing to see something new. I was only too anxious to leave the unrest and tumult of large cities behind me and come in closer touch with nature, and particularly to be given an opportunity to see more of the flora and forests of Russia and Siberia. Although the forests in this part of the journey are somewhat monotonous, owing to

the fact that they represent only a few varieties of trees, they never lose their charm and constantly attract the eye. There is something magnetic about a primitive forest, and the tourist who enjoys its beauty and grandeur is filled with gratitude to those who gave it protection. In passing through these forests I had an excellent opportunity to study the behavior of several of the principal trees, the birch, fir, and oak, which led me to gather some thoughts on the virtue of trees.

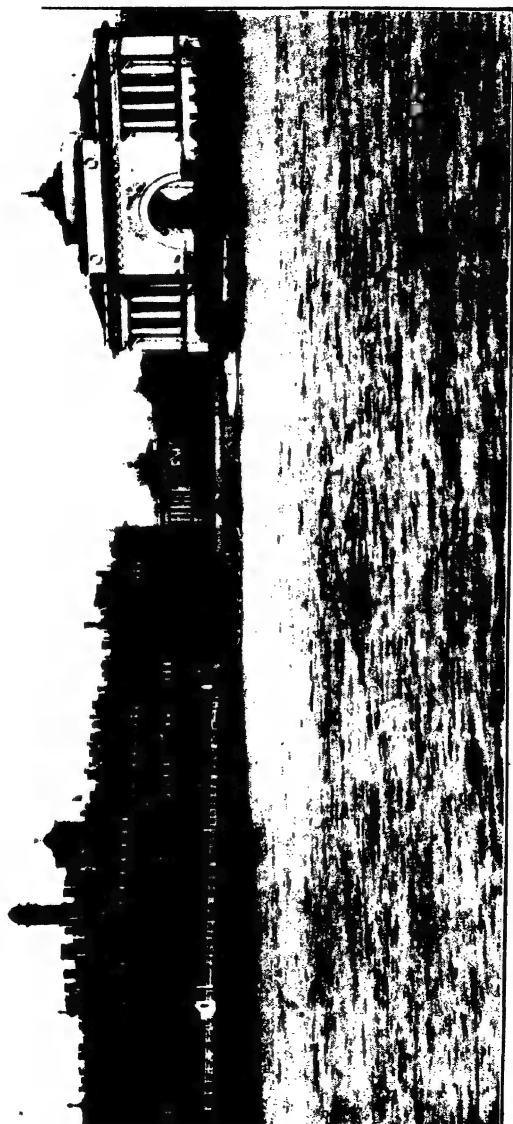
Trees like plants, animals, and men have their virtues as well as their vices. Some are good, others are bad. Some deserve praise, others censure. During their cycle of life some inhabitants of the forest preach virtue, others are bold in exposing their wickedness and vices. Some trees are healthy, some present a picture of disease and death. To my mind one of the most beautiful trees is the birch as it grows in Russia and Siberia. The birch is the very emblem of purity, modesty, unselfishness, frugality, and endurance. It is the undisputed virgin of the forest. Its dress of silver white is always scrupulously clean, modest, but always attractive. Its heart-shaped, serrated leaf is not out of proportion to its body. It claims but little of the soil from which it springs. It loves its children and is charitable toward its neighbors. When it is fortunate enough to be born in a locality where there is no competition for life it utilizes its advantages and sends out long branches almost from the base of the trunk, and its body is then short and strong. If it has near neighbors, either of its own kind, young or old, or trees not akin, it lifts and folds its branches, and its slender body grows heavenward. Its wood is fine-grained, white, and flexible. If it is slaughtered by the rude ax it yields a material that pleases the most ravenous engine and brings comfort

to rich and poor alike during the long dreary months of winter.

The fir, although belonging to an entirely different species of trees, has many of the good qualities of the birch. If isolated and alone its crown spreads and its body becomes short and rugged. If its lot is cast in a densely populated forest it is content with a small crown of emerald green, and its trunk has only one ambition—to reach the clouds. It is passionately fond of its own offspring and does not rob its little children of the necessary food like some of its barbarous neighbors. It sends its roots down deep into the soil so as not to encroach cruelly upon the territory of its neighbors. It encourages the little firs in their ambition to reach the height of their mother. It is not so gay as the birch. It appears more grave and somber in tanned leather suit. Its soberness, however, is a virtue. It charges the surrounding atmosphere with its pleasing, health-imparting, resinous product. Its shapely crown is a harp upon which the invisible hand of the wind plays the sweetest notes. And, finally, when destroyed by man for selfish purposes, its body is converted into masts, or is used in building comfortable homes for its arch enemy—man—and its branches and crown are consigned to fire to render these homes warm and cheerful.

Who can say that the birch and fir do not lead a useful and unselfish life?

I will now give a picture of a tree that is notoriously selfish and cruel—it is no other than the familiar oak in all of its varieties. Even in its external appearances this tree cannot compare with the lovely birch and the modest fir. It has a cold, unsympathetic, bearish exterior. It asserts no friendship. It hates neighbors. It is a cruel mother that destroys, starves



WINTER PALACE, ST. PETERSBURG.

its own offspring. It is afraid of cold and wears its rough, thick, unsightly garment summer and winter and in all climes alike. It has a defiant bearing, throwing out its strong branches in all directions, and woe to the weaker neighbors that come within their reach. It sends out its roots far and wide in its greed to satisfy its hunger and thirst. Its own children have no chance for life if born within reach of the shadow of their mother. It robs what it can dispose of from the air which surrounds and fans it and the soil which serves as its footstool and food supply. Like the gourmand, its body becomes gross, bulky, and strong. Its robust arms grow in length and strength. The leaves do not droop like those of the birch, but stand out boldly and defiantly. No wonder the warring elements select this proud, angry, defiant, selfish tree as the favorite mark for their destructive work. It is the thunderbolt that occasionally steps in and inflicts a well-deserved punishment, and many a giant oak has received its penalty by deadly missiles from the clouds.

If anything Russia excels even Germany in the matter of uniforms. On the sidewalks of any of the large cities, and more especially at railway stations, it is safe to assert that at least twenty-five per cent. of all male adults are in uniform. It is a puzzle to the tourist to identify the bearers of such distinctive garbs, consequently the different branches of the government service are often wrongly interpreted. The gaudy uniform does not always indicate a high official, as an officer of high rank may appear in a plain uniform and one of low rank not infrequently parades the streets with more fuss and feathers than his commander.

All military men, government officials, railway men, and university students wear uniforms and can be distinguished from one another by those who are conversant

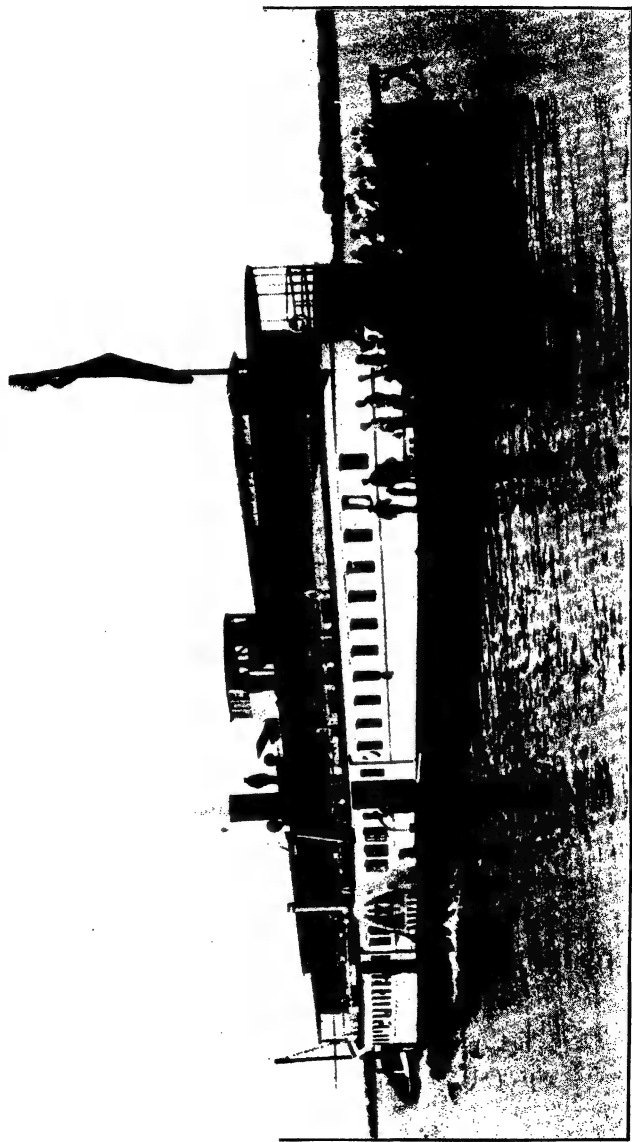
sant with their insignia. The dangling sidearms constitute an essential part of the uniform of every military officer, and the privates are never seen in the streets without the bayonet. This checkered army of uniformed men imparts to the country its monarchic character.

It is a relief to the American traveler when he returns to his native country to find that public affairs can be successfully managed without so much display of gold lace and implements of destruction.

Russia is the land of churches. Every village has its church, and the cities are adorned by numerous blue and gilded domes, surmounted by the Greek cross. Moscow alone has over 400 churches. The Church of Our Savior is the finest and most imposing structure of its kind in the world excepting St. Peter's of Rome. St. Isaac's in St. Petersburg has a more costly interior, but its exterior cannot compare with the Savior's Church. The singing of the hidden male choir in the Greek churches is exquisite.

No such voices can be heard in any other country. The service is impressive, the standing and kneeling audience, full of attention, almost breathless. The gorgeous garments of the priests add greatly to the solemnity of the services. The bearded, long-haired priests are numerous, but on the whole, taking their countenance as an indication of their intelligence, they rank far below the priests of the Roman Catholic church.

The icon is the center of worship and devotion in churches and in public places. No good Greek Catholic passes an icon without removing his cap and making the sign of the cross, and, as these places of devotion are close together, it requires no little effort to do homage to all. In Ssurash I witnessed a strange-



A VOLGA STEAMER.

sight. In front of one of the principal stores stood a covered carriage of peculiar construction, around which and in front of the building a large crowd, with bare heads, had gathered. Behind the door of the carriage was another narrow, high door, which remained open. Through this slit-like door a large icon had been taken and was carried into the store, followed by a priest.

Every one who came near removed the hat and stood in an attitude of devotion. In a few minutes the icon made its appearance, was placed in its compartment, the priest entered the carriage, and the ceremony was at an end. I was informed that this ceremony was requested by the proprietor of the store, whose business had become stagnant and who believed the presence of the icon with the blessings of the priest would bring better and more customers. At any rate, the performance cost him fifty rubles, and it is to be hoped his faith will be amply rewarded.

From time immemorial the sign language has been the universal language. It must date back from the time when the Babylonian tower was in process of erection. Our native Indians were experts in conversing among themselves and with the white man by means of this silent language.

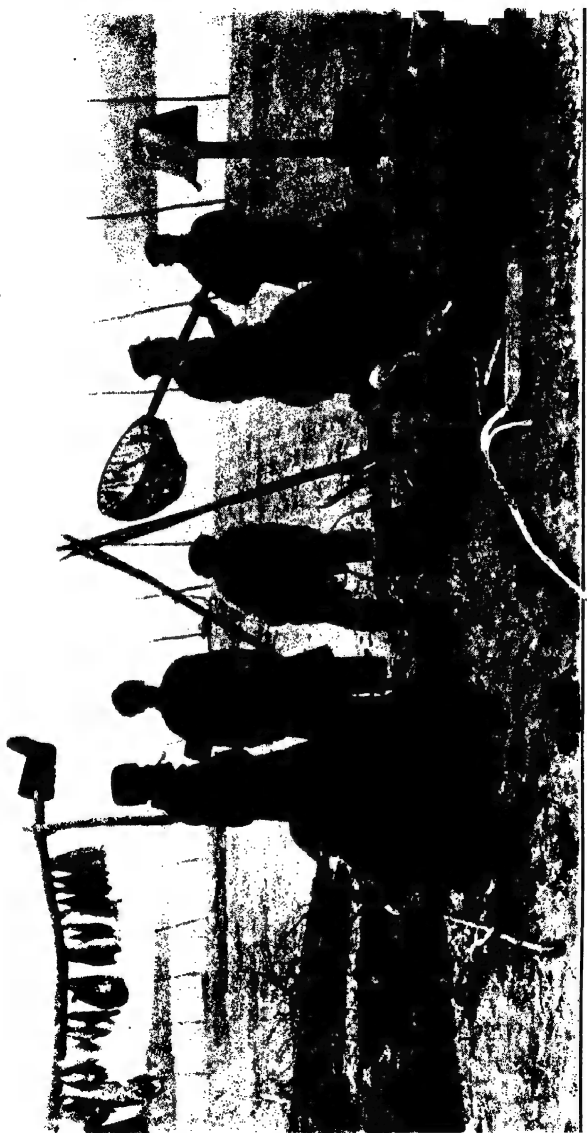
The traveler in Russia, when language fails him, as is often the case, must resort to the same expedient in making known his urgent wishes. It is wonderful what can be done with a lead pencil, a blank sheet of paper, and muscles in communicating with our fellow-man when language fails in conveying our thoughts. A very simple instance will illustrate this point. In Moscow I was anxious to secure a photograph of the largest cannon in the world, the "Cannon de Tsar," that can swallow a ball a foot and a half in diameter.

The man in the establishment was a German Russian, conversant only with his native tongue. As a last resort Dr. Frank drew a picture of the cannon with his finger, in the air, and imitated, in a feeble way, its voice, with the result that the coveted picture was promptly produced. This is only one of the many instances in which this manner of communicating our wants answered our expectations.

This season of the year is best adapted for the traveler through Russia and Siberia who is anxious to accomplish much in a short time. The days are long; the nights correspondingly short. In St. Petersburg artificial light was superfluous in reading ordinary print as late as 9:30. Twilight appears again as early as 2 a. m. This long twilight renders the sky almost starless during the greater part of the night, as only the stars of the largest magnitude could cope successfully with the prolonged effects of the hidden sun. Like all other good and desirable things, this long twilight has its drawbacks. People forget to go to bed in time and are roused with difficulty at the usual hour next morning. Stores and public places are closed until nine o'clock, and it was found impossible to get a cup of coffee in any restaurant before that time. Long days to the enthusiastic traveler mean much work, little sleep, and tired limbs.

Much has been said concerning the misery of the Russian peasants. We have seen so far little abject poverty. Many of the peasants liberated less than fifty years ago are now landowners and prosperous farmers. The peasant man and woman work hard at this time, from five o'clock in the morning until long after sunset.

The habits of this class of people are frugal, consequently many come into possession of considerable



FISHING ON THE VOLGA—AFTER THE CATCH.

property. During work days they reduce stocking and footwear expense to a minimum. The feet and legs are wrapped with a coarse cloth, held in place with serpentine tours of a strong hempen string. The shoes are made of braided straw.

The agricultural implements are few and of the most primitive kind. The sickle and cradle scythe are still in use in the harvest field. The carts and wagons are springless.

The people subsist mostly on black bread, onions, and pork. Fruit is scarce. Sour cherries, the Siberian apple, raspberries, small pears, and strawberries were about the only fruit offered for sale at the railway stations and the stores.

We took the slow train from Moscow to Ssamara for the purpose of giving us a better opportunity to study the country and the people. We left Moscow on Monday, July 22d, at 2:50 p. m., and made the trip of about 800 miles in fifty-one hours. It was on this trip that I was reminded of the Russian calendar.

At one of the stations I bought in a great hurry a German newspaper, for which I paid twenty kopeks, while the fixed price is only ten kopeks, something I discovered after the newsboy was out of sight. When I searched the paper for news I learned that the paper, according to our calendar, was thirteen days old.

That I did not feel kindly toward the little newspaper waif on making the second discovery of dishonesty requires no explanation. A man's temper and humor are not favorably acted upon when he finds out that somebody has wilfully and intentionally taken advantage of him. When I ascertained that a difference of thirteen days exists between our calendar and the Russian calendar I forgave the little boy one-half of his sin,

The country through which the railroad passes is, for the greater part, a high plain. The greatest altitude, 1,200 feet above the level of the sea, was reached near Pensa. In this city cloth made of goats' hair is manufactured on a large scale. We never lost sight of grain fields. Often as far as the eye could reach nothing could be seen but grain. I never had the faintest idea of the wheat product of Russia.

This country is really the wheat granary of the world. This year's crop was a partial failure, the entire amount being only one-half of last year's yield—a fact which may have a decided effect on the wheat market of our country. In the western part of Russia millet is one of the principal farm products.

We first came in sight of the Volga River at Batraki, where it was crossed by the Alexander bridge. This bridge rests on twelve pillars, and it requires six minutes for the train to cross it. The Volga is the Mississippi of Russia—the great water pathway between the Caspian Sea and the north. The Caspian Sea has no visible outlet, and yet the enormous volume of water poured into it from the Volga does not affect its depth to any considerable extent when the river is high during the rainy season.

The next time we saw this mighty stream was at Ssamara, where its width corresponds with that of the Mississippi at St. Louis.

Ssamara has at present 120,000 inhabitants. Its growth has been rapid since the opening of the Transsiberian railroad, which begins here. It presents many of the features of our western cities. No massive buildings; the streets are paved with cobblestones. Street cars of the simplest construction, drawn by one horse, establish a communication between the eastern and western parts of the city. The two days we spent



RAFTING ON THE VOLGA.

in Ssamara we lived at the Central Hotel, where none of the employes spoke anything else but their mother language. The daily expenses at this hotel exceeded the Auditorium Hotel charges. This city has a reputation for its healthful climate. A sanatorium, located in a beautiful park on the banks of the Volga, for a number of years did a flourishing business by treating consumptives from a distance with koumiss made by farmers from mares' milk. Like all alleged cures for this terrible disease, it failed, and the institution is now in a dilapidated condition and could be bought for a fabulously low price.

The General Hospital at Ssamara is located in a handsome park near the western limits of the city, and consists of a number of wooden buildings, in barrack style. Each building does service for seventeen years, when it is removed and replaced by a new one. At present the hospital contains 400 patients. These patients are admitted from all parts of the Ssamara province and pay twenty kopeks a day. If the applicant is destitute, as is often the case, the district from which he comes pays this small charge for him. We spent half a day in the surgical section, in charge of Dr. Johannes Dsirne, a surgeon of more than a local reputation. We had the pleasure of witnessing two operations for stone in the bladder. Stone in the bladder is quite common in this section of the country, as this surgeon annually performs on an average one hundred operations.

Although the operating-room lacks many of the modern conveniences, the results obtained would compare well with those in our best equipped institutions, something we must attribute to the pedantic cleanliness of the operator and his assistants. The anesthetic, chloroform, was administered by a female feldscher

or barber surgeon, and two other women of the same grade of medical education rendered assistance. The chief assistant was a recent graduate in medicine. These barber surgeons, male and female, are expected to assist licensed physicians, but are not permitted to operate or prescribe except in cases in which the services of a regular graduate in medicine cannot be secured. These barber surgeons must study their profession for four years, and the women are required to take an additional course in gynecology and obstetrics.

Both patients were puny boys from the steppes of western Russia. In one case the high operation was performed; in the other the stone was removed by median perineal section after crushing.

It is a fact worthy of note that according to the experience of Dr. Dsirne the peasants are almost immune against shock, he in his large experience having observed only one case. Dr. Dsirne invariably sutures the vesical wound in performing the high operation, using two rows of fine silk sutures, excluding carefully the mucous membrane. In most cases uncomplicated by cystitis he has seen the wound heal by primary intention. If cystitis is present he drains. Dr. Dsirne is a careful, conscientious, and dextrous operator. I am glad to know that he will visit the medical institutions of Chicago some time next summer.

CHAPTER V.

SIBERIA—GENERAL DESCRIPTION—FLORA AND FAUNA— NATURAL RESOURCES — INHABITANTS — COMMERCIAL AWAKENING.

The inquisitive examiner who looks around him despises the narrow limits of this world in which he dwells. For how short, after all, the distance that intervenes between the remote shores of Spain and the Indies! A space passed over in a very few short days if a favorable wind fills his sails.—Seneca.

WHAT would Seneca say if he were with us in our race against the sun, borne by ocean greyhounds and whirled through forests and over mountains and plains by the Transsiberian railroad? To him the trip from Spain to the Indies, by a sailing vessel which depended for its speed on the uncertain wind, was the highest accomplishment of the globe-trotter.

To-day the ambition of an enthusiastic traveler includes an all-around-the-world trip. Fifty years ago but few Americans undertook an ocean voyage; to-day it has become a common pastime. A trip around the world is still a somewhat rare undertaking. The Transsiberian railway has opened a pathway which will entice the traveler to spend his vacation in encircling the globe, as the time is not far distant when this can be done by this route in forty-one days, with comfort and comparatively small expense. The Transsiberian road has unlocked the doors of that vast and mysterious country on the Asiatic side of the Ural Mountains, which in area exceeds the size of Europe and which for centuries has awaited immigration to develop its enormous resources. The shriek of the locomotive in

the mountains and dense forests of Siberia is a bugle blast which has invited the inhabitants of the adjacent European Russia to seek new homes and add to the resources and power of the Russian Empire.

Siberia has become a magnet for the traveler, as he finds here many object lessons for thought and study, and which are now attracting the attention of the world. We consider ourselves fortunate to be among the first of our countrymen to take advantage of the new pathway through this vast country by rail and steamer to study its primitive peoples, its resources, and the prospects of the army of immigrants who have found their way into its interior in search of betterment of their condition.

On the east side of the Ural Mountains, west Siberia consists of an immense plain, not much above the level of the sea, with a gradual slope toward the frozen regions of the Polar Sea. Only a part of this immense surface is dotted by hills, the highest of which does not exceed 500 feet. This treeless borderland, interspersed with salt marshes and inland salt and fresh-water lakes, and traversed by small rivers, terminates in the deserts of middle Asia, and is only scantily inhabited by nomadic tribes. The watered portion of these plains, where alluvial soil is present, is covered by a carpet of green grass and other vegetation. The farming lands of west Siberia embrace 8,600 geographical square miles, and are abundantly supplied with timber. The black soil found here is the "real gold" of Siberia, as it is productive and will reward freely the intelligent labor expended upon it. The forests of west Siberia contain 17,000 geographical square miles.

In the southeast corner of this western plain rise the Altai tablelands, far above the level of the sea.

This alpine district contains 7,800 geographical square miles, and is ten times larger than Switzerland, and is intersected by numerous valleys in a direction from east to west. Some of the highest mountain peaks reach far beyond the snow limits. The Bielucha, for instance, is more than 10,000 feet in height. From this alpine region many rivers take their source. The metals found in these mountains are silver, lead, copper, and some gold. The valleys and river beds are fertile and well adapted for grazing and agriculture.

East Siberia presents an entirely different topographical configuration. It is mountainous and covered with a dense forest. It represents Siberia's timber wealth. The Yenisei arises in the Sajon, perforates the mountain, and is fringed by beautiful green banks. The principal peak of the Sajon in the southeast corner of the province of Irkutsk is covered by eternal ice and snow. The highest point at the Chinese border is the Munku-Sardyk, which rises to a height of about 11,000 feet. From the Sajon high ridges extend which encircle Lake Baikal. The outlet of Baikal Lake is the Angara, the largest tributary of the Yenisei River. The Lena has its source in the Baikal Mountains and forms the connecting link between it and the Polar Sea. In the Sajon ridges are found the richest deposits of silver, lead, iron, and coal. Gold sand is found most abundant in the Lena tributaries, notably the Vitim and Olekma.

Ten thousand square miles of Siberia can be utilized for grazing and agricultural purposes. In the northern part are heavy forests and extensive marshes, including 65,000 geographical miles. The Amur Province is an elevated plain, which slopes from west to east toward the Pacific Ocean. It is bounded on the north

by the Jablonowski range of mountains and on the south by the Khin-Gan. The highest peak is nearly 6,000 feet in height. Gold sand is found in the river beds and mineral deposits in the mountains. The mesas or tablelands on some of the mountains bear a strong resemblance to the American prairies. The melting of snow and heavy rains frequently flood the many valleys. The mountain sides are clad by primeval forests. This part of the country is but scantily settled. From the western to the eastern border the mighty Amur is the great pathway of travel, its ships, large and small, furnishing the only means of transportation.

The possession more recently acquired by the Russians, the coast district, is divided into two parts by the Amur River. The northern part is the Ochotsko-Kamtchatka Province, an immense tract of land which extends into the polar region, and the southern, the Ussuri Province. The numerous islands which stand sentinel-like along the coast are of little value. The largest of these, Ssachalin, is used as a penal station.

The climate is extremely variable, owing to the geographical location and topographical nature of the country. The temperature is noted for the rapidity with which the severe cold winter is followed by a very hot, short summer. The Siberian summer does not extend over three months. Spring and fall are only known by the budding and falling—the life and death of the leaves. January is the coldest month, June and July the hottest. The arable soil is more productive than in European Russia, and vegetation more luxurious. The grain sprouts, grows, ripens, and is harvested in less than three months. The dryness of the atmosphere during the winter favorably modifies the effect of the intense

cold. It is stated on good authority that tuberculosis has never been known to originate in Ssamara and Tschita, and it is in the latter place that the mercury freezes and remains solid for weeks. Farther north the salubrity of the climate diminishes.

The same conditions which govern the climate influence plant life, modified by the character of the soil and the amount of rainfall. The great fertility of the virgin soil and the brevity of the summer impart to vegetation almost a tropical luxuriance.

The flowers are famed for the richness of their color, and the trees and grass for their verdure. On the whole, the flora corresponds with that of European Russia in the same latitude. Along the line of the railroad from the Ural to the Yenisei it is about the same. East from the Yenisei there is some variation, incident to the mountainous character of the country rather than the climatic changes. Here the vegetation is alpine and subalpine. It is here that the eye is enchanted by the exquisite beauty of the flowers. It is here that the edelweiss is found, the beautiful mountain flower of Switzerland, where it is found only at a great elevation along the very margins of the eternal snow. This charming flower is found in Siberia in great abundance on the open tablelands. Among the most characteristic flowers in the Altai-Sajan districts must be mentioned the beautiful anemone (*A. umbrosa*, *Fischeriana*, *pulsatilla*), characteristic varieties of *ranunculaceæ* (*R. altaicus*, *pulchellus*, *natans*, etc.), many varieties of *cruciferæ*, violets (*V. altaica*, *macrocarpa*, *acuminata*, etc.), special varieties of pinks and *astragalus*. The leaves of the *saxifraga crassifolia* are used as a substitute for tea.

The alpine meadows are beautified by hyacinths, lilies and different flowers found on our prairies and

meadows. In the Ural Mountains are found the Siberian crab-apple as an indigenous tree, oak, walnut and elm, maple, and aspen, and birch. In the plains we find the birch (*betula alba*), aspen (*populus tremula*), alder (*alnus glutinosa*, *incana*), poplar (*populus alba*) *prunus padus*, and *sorbus aucuparia*, *tomentosa*.

The immense forests are made up of different kinds of coniferæ. The cedar is found in all parts of Siberia and its fruit, a nut, is a source of considerable income to the natives. The big trees of the Altai Mountains do not differ from those in west and east Siberia, regardless of the zones in which they are found. Azalea and rhododendron grow on the southern exposures of the mountains.

On the east side of the Jablonowski ridge we again meet hardwood timber, the oak, elm, walnut, and the wild apple tree (*pyrus baccata*), also different kinds of shrubs. The plants gradually assume the type of Mongolian vegetation. In the Amur district and along the Ussuri coast, vegetation is very luxurious. Here we find the Manchurian cedar (*pinus mandshurica*), *picea ajanensis*, *taxus* (*taxus baccata*), that are indigenous in the Caucasian Mountains. The linden is met with in two varieties (*Tilia mandshurica*, *cordata*) peculiar to the east, also four varieties unknown in western Siberia.

The wild apple tree found here bears a large and luscious fruit. In the forests of the Amur Province two varieties of walnut grow (*Juglans mandshurica*, *stenocarpa*), also twenty-four different kinds of shrubs new to Siberia. That hardy tree, the birch, that defies soil and ignores climate, is everywhere. Its deep green, shining, trembling leaves that make their appearance so soon after the snow melts away, live a short time

and are withered by the icy blasts from the Polar Sea. The silver-white bark distinguishes it from all its neighbors and shines through the dark forest like bands of the precious metal. For more than one reason, Hans Andersen has designated this tree as the "lady of the forest."

The most imposing of all forests is, however, the fir forest. The trunk of the fir tree is as straight as an arrow and is surmounted at the very top by a modest crown of bunches of long, dark green needles. The fir forest is carpeted by a soft bed of dry, brown needles, and when fanned by a gentle breeze becomes a concert hall in which the sweetest of all music is dispensed from invisible hands. This soft Æolian air is like the gentle whispering of angel voices. Nothing is equal to the enjoyment of lying upon the soft moss bed and listening to the voice from the treetops, or to dream when the heavenly music is silenced. Yon giant trees teach us power combined with rest, and your breath freely inhaled brings health and happiness. Could our poor consumptives enjoy the life-imparting and germ-destroying resinous air of the Siberian fir forests during one short season, they would have a better chance to recover their health than by relying on nauseous drugs.

Animal life in Siberia, as in any other country, varies according to zone, altitude, and the character of food. The great grazing districts are well adapted for the raising of cattle, horses, and sheep, and are now being utilized on a large scale for this purpose.

Wild animals are most abundant in the northern part, where human habitations are few. Here dwells the polar bear (*ursus maritimus*), the vulpes lagopus, and small striped myodes torquatus and obensis. In the north is found the mountain hare (*lepus variabilis*)

and the northern deer, the reindeer (*rangifer tarandus*). Among the valuable fur-bearing animals in the northeastern part are the marten, ermine, sable, fox and the Arctic blue fox, and along the coast the seal. Squirrels are very abundant in the mountains and are often hunted by the women.

In the alpine plains are the Arctic wolf (*canis alpinus*), two varieties of cats (*felis irbis* and *manul*), the deer (*cervus elaphus*), the mountain goat (*ægcercus montanos*), the argali (*caprovis argali*). On the steppes two kinds of antelopes (*antilope gutturosa* and *crispa*), and the wild ass (*equus hemionus*), and the wild hog (*sus scrofa*) are found.

The water fowl are numerous. They breed along the north coast and on the river banks. Ducks are plentiful during the spring overflows of the rivers. Game birds are caught in nets and are sold at a fabulously low price. It is said that a snipe brings only one kopek and a wild duck three. A hare without skin costs one kopek and in the skin three to five. From this it may be seen that certain parts of Siberia are a hunter's paradise, but they will not remain so for any length of time, as with the enormous immigration that continues unabated the game will be rapidly destroyed unless the government resorts to rigid measures to preserve it.

The fish supply of the Siberian rivers is very abundant. Four kinds of trout and the sturgeon are the most important river fish. Two of the best fish in Siberia are the omul, a small salmon found only in Lake Baikal and the Arctic Ocean, and the sterlet, a river fish. The fisheries on the Amur coast furnish remunerative employment for the inhabitants of that province.

In 1897 the population of Siberia numbered

7,091,244. Since that time it has rapidly increased, as from that year until recently 1,047,679 immigrants were added, besides the indigenous increase.

The Russians found their way into Siberia by crossing the Ural Mountains from west to east. The earliest settlers from that country were convicts, who established colonies in different parts of the country. The Russian immigrants moved from west to east in slow progression and now occupy a continuous belt of land which tapers from the Amur in the direction of Lake Baikal. Small branches of this main body are found on the banks of the main rivers, the Ob, Yenisei, Lena and Usuri. Smaller colonies are scattered through different parts of the country. The indigenous Mongol, Finnish, and Tartar tribes that occupy large tracts of land are in the minority and are surrounded by the immigrants on all sides. The northern part of the country beyond the Ural is inhabited by the Voguls. Further north and northeast we find Siberian Tartars, Ostyaks, Samo-Yedes, Tunguses, Yakuts, Yukaghirs, Koryaks, Tchuktchis, Kamchadales, and Giliaks. With the exception of the Tartars, all tribes are nomadic. South of the Russian settlements are the Siberian Tartars, Kirghizes, Altaians, Kal-mucks, Soyots and Buriats, who cultivate the fields and raise cattle.

In consequence of advancing civilization, a number of the nomadic tribes are rapidly disappearing and will soon be extinct, sharing the fate of the American Indians. The Russian government favors immigration by facilitating transportation and by exempting the new settlers for a number of years from taxation.

Intelligent farming in Siberia in a few years will be remunerative. The principal agricultural products are wheat, rye, oats, buckwheat, barley, millet, beans,

and potatoes. On an average, each farmer owns two to three horses, two to three milch cows, and five to six sheep. The Siberian horse is small, patient, strong, and enduring. Camels with two-hump backs are found in southern Siberia. This docile animal is used, as elsewhere, as a substitute for ship and railway car, at the same time supplying its owner with milk, meat, wool, and hide. Recently it has also been employed in cultivating the fields.

In the commercial awakening of Siberia, and particularly of its richest part, the Amur Province, an important role will be played by our country, which is its nearest civilized neighbor and between which and Russia the most cordial relations have existed in the past and between which no misunderstanding is likely to arise in the future. Energy and capital are necessary to develop the enormous resources of this country so recently opened to commerce, agriculture and industrial pursuits. It was Napoleon who said that another century would see all Europe republican or Cossack, and who declared that Russia's mission lay in the east, and it is in that direction that her expansion has been most rapid, because it has met with least resistance. The American sawmill, paper mill, reaper, threshing machines, steel and iron works will ere long develop the resources of this vast country and will create an era of prosperity that will startle and please the natives.

CHAPTER VI.

IMMIGRATION—THE JEWS IN RUSSIA—PEASANT WISDOM—THE MUJIK AND HIS HORSE—OUR STARTING PLACE SSAMARA—RUSSIAN COOKERY AND DRINKS—THE URAL MOUNTAINS—THE STARVELING BIRCH—TSCHELJABINSK—PETROPAULOVSK TO OMSK—IRKUTSK.

What pleasure it is to stand in the way of no one, to be able to enjoy a secure repast ! Crimes do not enter into the cottages of the poor; we may eat our food with safety on an humble table; poison is quaffed from golden cups. I speak from experience; an obscure life is preferable to one spent in a high station.—Seneca.

SIBERIA, the land we are in search of, is the land of the poor. Until it was traversed by a pair of iron rails from west to east, it certainly was the land of torture, misery, and poverty.

This new pathway of communication will open up unknown and perhaps unexpected resources which will better the condition of the people. The semi-barbaric tribes, the original inhabitants, and the colonies of prisoners deprived of their right of citizenship in their native country had not the ability, much less the ambition, to labor for a competency. Immigration from Russia has been in progress for centuries, but it has been slow and irregular until the completion of the Transsiberian railroad. The hardships of the early immigrants can be better imagined than described. The only means of transportation were on horseback, rude ox-carts, or on foot. It is not difficult to conceive that they had to enter the strange, unknown land with only a few of the necessities of life and with little prospect of an early reward for their labor.

Thrown upon the inhospitable soil of Siberia during a four months' hot summer, we can readily imagine the inevitable deprivations to which they were exposed during the first eight months' winter. Houses had to be built and little could be expected from the first year's yield of the land. Farming and cattle-raising could not have been profitable with the market hundreds of miles distant; hence we can readily understand that until recently Siberia was the land of the poor. It requires only a tour over the Transsiberian railroad to-day to satisfy the traveler that the immigrants who seek their fortune in this vast territory so recently unlocked by modern means of communication and transportation are poor.

As I am writing these lines at Tscheljabinsk, nearly two hundred immigrants fill the third-class waiting-room and the barracks for immigrants near by. It is a motley crowd, composed largely of young and middle-aged men, with their wives and with a very liberal number of children. Nearly all their possessions find room in the crowded coaches. To them, restaurants do not exist. They live on black bread and tea. Those who are very poor make their own tea. At the stations they procure hot water provided by the government and by adding the tea their beverage is ready in a few minutes. The head of a family who has a little more copper in his pockets takes a little tin pail or pot and has it filled with ready-made tea from a gorgeous samovar and rewards the vender with a few kopeks. Mothers nursing their children on the platform, and purchasing a few onions, eggs, or a sausage are very common sights. Many of the men and women somewhat along in years bear the stamp of hardship on their faces. The skin is thick and wrinkled and resembles very much the

appearance of tanned leather stained in different colors.

No one who has not traveled through it from south to north and east to west has any conception of the vastness of the Czar's empire. In 1897 I crossed Russia from the Black Sea to St. Petersburg, and on a previous occasion had visited Finland, and thus gained some idea of the extent of European Russia. According to the census of 1897, European Russia has 103,631,340 inhabitants, the entire empire 128,931,827.

It is the journey from west to east that furnishes the climax in the conception of the enormousness of the country over which the Czar has supreme control. Siberia, the strange land, the land of the future, alone is one and one-half times as large as Europe, two and one-third times larger than European Russia, twenty-five times larger than Germany, and has at present 7,091,000 inhabitants. European Russia must have an outlet for its rapidly increasing population, and this outlet will naturally be Siberia and eventually Manchuria. The indigenous rapid increase in the population can be readily explained if it be generally known that a wilful, intentional abortion, so frequently practiced in other countries, is regarded as murder, a crime for which both parties, upon conviction, receive the maximum penalty of the law. More civilized countries treat such offenders against the law more tenderly, and Russia, considered by many as being in a semi-barbaric state, sets a good example for imitation. Russia is growing; Russia is prosperous; Russia before long will astonish the world in more ways than one.

As we are passing through Russia from the European side into Siberia, we have an excellent opportu-

nity to study the blending of races. The deeper we penetrate into Siberia the more we notice the Mongolian type. The eyeslit becomes narrower and longer, the malar bones more prominent, and the skin and eyes darker. Here at Tscheljabinsk I see many a hard-looking individual who only lacks the braided pigtail to make him a Chinaman.

There is one feature in the Russian physiognomy that is quite common to all, rich and poor, high and low, educated and ignorant, and that is the nose. The Russian nose is a characteristic one. It is short, broad, flattened, with a well-marked depression over the middle of the bridge. The tip of the nose is turned upward and the nostrils are wide. If there are any beautiful Russian women, I have failed to see them, or else my taste in this matter is not of the right kind. The bodily strength and endurance of the laboring classes are the result of frugal living and hard work. The manner of living of the peasantry might be well recommended to our rich men and women who in vain consult physicians and swallow drugs to relieve them of some real or imaginary affliction, for

*Change of diet is sometimes agreeable to the rich,
and the frugal suppers of the poor, under an
humble roof, without purple drapery, can smooth
the clouded brow.—Horace.*

When, a number of years ago, the Russian government found it advisable to diminish the number of inhabitants of Jewish birth, our newspapers were bristling with editorials on this subject. What led to this alleged persecution of this indomitable race is not known to the outside world. The history of the world has shown only too conclusively that no sort of persecution can wipe out the God-chosen people.

The Jews, as exiles from the land of their fore-

fathers, have been driven from country to country until they have become disseminated over all the habitable parts of the world, and wherever they are and whither they go they multiply and thrive. How many Jews who came penniless to our country shouldered the pack and sold their limited stock in houses and by the wayside, have by their inherent shrewdness in business matters prospered and are now millionaires, good citizens, and the heads of happy families! Few Jews can be found in our prisons and few turn to our charitable institutions for aid. The Jew is not fond of hand labor, but give him any kind of business and he will be sure to succeed. The money market of the world to-day is largely in the hands of Jews. Many of the most profitable industries and business enterprises are under their control. What the Jew has done in Russia to make him obnoxious I do not know, but certain it is that at the present time he is under restrictions.

Although these restrictions have driven many Jews out of the country, 4,000,000 remain. Of this number seventy per cent. are fairly well educated; more would be if they were given an opportunity. The Russian minister set aside a small reservation for the Jews, which is called the Ghetto, and this district is made smaller every year. This small part of Russia was formerly called Litwa and included several cities of Lesser Poland. In this Ghetto the Jews are only permitted to live in the cities, and not in villages and on farms. In the remaining cities of Russia the Jews who conduct a business must take out a special license or permit, for which they pay 850 rubles annually. The veterans of the Crimean war are exempt from restrictions. In about one-half of the small cities those who work by manual labor are not interfered with.

Jews are not tolerated in St. Petersburg, Moscow, Siberia, and in the Cossack cities, unless they abandon their faith and join the Greek church. All of the universities admit Jews to the extent of five per cent. of the whole attendance. The people living in the Ghetto are very poor. Until two years ago more than one-half of the liquor trade was under the control of the Jews. Since that time it is under the management of the government. At the present time more than one-half of the bread trade is controlled by the Jews. The ownership of land requires a special tax annually of 850 rubles, and if the owner fails to pay this royalty he is forced to sell the land. The synagogues in St. Petersburg and Moscow are closed, by order of the government. Services are permitted only in private houses.

Notwithstanding the somewhat severe restrictions the better class of Russian Jews are suffering under at the present time, many of them conduct important enterprises in the large cities and outstrip their competitors not hampered by birth. Every able-bodied Jew of military age must serve the allotted time in the army, but is excluded from the privilege of attaining the rank of a commissioned officer.

The following anecdote was told by a Talmud student, and I give it as related by Dr. Frank. An astronomer and physician were traveling through Russia, and one evening were obliged to ask for quarters at a peasant's (mujik's) log cabin. The request was cheerfully granted. They were, however, informed by the landlord that the resources of the table were of the plainest kind. As the cabin contained only two rooms, they had no difficulty in observing the preparations for the evening meal. The supper consisted of stale fish and side dishes of an equally

uninviting nature. The hungry travelers objected to taking part in the repast, as the doctor affirmed that such indulgence would surely result in death from ptomain poisoning. The family had no such scruples and ate freely. Contrary to the prediction of the doctor, all were hale and hearty the next day.

The farmer invited the travelers to spend the night in the cabin, as he predicted a heavy storm during the night. From the existing atmospheric indications, the astronomer could not agree with his host's prognostications, and the two slept outdoors. At midnight they were awakened by a violent storm and they had to take refuge in the house. In the morning the learned astronomer asked the peasant by what means he could predict with such accuracy the storm, when in the evening the sky was cloudless. The doctor desired to know why the tainted food produced no ill results. The mujik's reply was, "We take a drink of vodka before and after meals, which destroys the poison, and we could predict the storm by the peculiar restless behavior of a young bull, which always meant an impending storm." The lesson to be drawn from this story is that the Russian has no use for doctors and astronomers, and that wise men can often be instructed by the ignorant, who, however, are often well informed in what is contained in nature's open book.

Siberia has many things that require in their description adjectives in the superlative. Its forests and rivers cannot be adequately described in words. They must be seen to be fully understood and appreciated. The plains extend over thousands of miles of its territory. They can be compared only with the wheat-producing prairies of Manitoba. The plains on both sides of the Ural Mountains are from 600 to

1,200 feet above the level of the sea. The plain, or steppe, between Ssamara and the Ural is somewhat undulating, and along the railroad is fairly well settled. It is well adapted for grazing and agriculture. The forests that divide the farms at varying distances consist almost exclusively of hardwood timber—birch, oak, elm, and maple, with a liberal admixture of poplar and aspen. The immense plain east of the Ural Mountains is as level as a billiard table. Here all trace of coniferæ is lost and the birch, the tree that inhabits all parts of Siberia, has only few competitors, the aspen, poplar, and willow. These plains differ from the arid plains of our country in that they are well watered by numerous small lakes, some of them containing salt water, and small rivers, and in that timber of some kind is never out of sight. The sage-brush found everywhere reminds us of our western prairies.

The mujik on horseback at a distance might well be mistaken for one of our Indians. The Siberian horse is almost a counterpart of our Indian ponies—small, wiry, and patient. A long journey over these plains is somewhat monotonous and yet every hour brings new pictures, new revelations. As far as the eye can reach are pastures, relieved at short intervals by woodlands. The soil is rich, moisture ample. The pasturage of these plains is ideal—abundance of grass and fresh water. The grass is short, but thick, and must be very nutritious, if we may draw this conclusion from the excellent appearance of the horses and cattle that are grazing in herds of varying sizes. The great enemy of the herdsman here is the long and severe winter, during which the animals must live on what man provides. As the grass is very short, it requires a great deal of labor to cut, cure, and house a ton of

hay. How merry these domestic animals must be when, after a confinement of nearly eight months in snow sheds, they can enjoy the warm sunshine of the early days of summer and satisfy their hunger by clipping the tender, juicy blades of the virgin grass. How desolate these plains are during the long winter months, can be readily imagined. The inhabitants are few and far apart. The small groups of houses, the hamlets and villages are often many miles apart. A sense of loneliness and homesickness under these depressing circumstances must take possession of many a poor soul, and many of the new settlers would gladly join the poet in saying:

*Die Stunde war es die zu stillem Weinen
Den Wanderer zwingt, der in der Ferne weilt.*

The plains east of the Ural Mountains are not well adapted for agriculture. The warm season appears to be shorter than on the opposite side, as the grain fields are all green at this time and it will require at least four weeks more for the crop to mature. Oats, wheat, and rye are the principal farm products. The grain is thin and in height does not exceed ten to twelve inches, the average being much shorter.

The wild animals that can be seen in daytime from the train are few. Among the birds I noted the following: Crows, hawks, blackbirds, magpies, sparrows, turtle doves, plovers, and ducks. The many marshes and small lakes attract snipe in large numbers during high-water season. The steppe hen, a kind of grouse, is said to be quite plentiful. During the proper season this country must be a veritable paradise for the lover of the gun.

Judging from the variety and amount of fish served at the indoor and outdoor buffets at all eating stations,

the angler has an easy task in filling his basket. Rabbits are snared by the thousands annually. Although I have been on the lookout most of the time during the day, I have not seen a single wolf.

Thousands and thousands of acres of the most valuable pasture lands remain idle and can supply grazing for millions of heads of cattle, horses, and sheep. The black soil, on an average, is more than a foot in thickness and rests upon a brown clay bottom. In some places where the humus is shallow, the appearance of trees and grass nevertheless indicates a fertile soil. The farmer has no need of the ax in clearing the way for the plow. The fierce arctic winds and the long winters have removed all incumbrances to this important implement of civilization. The country is supplied with an abundance of timber, and good potable water can be obtained everywhere by digging wells not more than twenty to thirty feet in depth. Whether the long and severe winters will ever permit remunerative farming and stock raising remains for the future to determine.

Siberia, however, becomes populated by thousands of families annually who, by diligence and frugality, will make in their new homes an honest and comfortable living.

The quantity of grain grown on Siberian soil, even at the present time, was to me a source of great surprise, and with the rate immigration is taking place now it will soon equal, if not surpass, the European product.

Ssamara is the European terminal of the great Transsiberian railroad. It is here where many of the emigrants to Siberia begin their tedious and often trying journey. On the morning of July 26th we were at the depot early to take the express train. Every

coach and seat was occupied—a source of disappointment to us for the time being. This train makes the trip in six and one-half days, while the ordinary passenger train, which we boarded at 6:30 in the evening of the same day, requires two days more in covering the same distance. The slow train gave us a much better opportunity to see the country and study its topography and resources. The long stops at most of the stations brought us in closer contact with the people and gave us a better chance to familiarize ourselves with their physical and mental peculiarities, their dress, and manner of living. We traveled in a first-class coach, for which privilege we had to purchase a second and third-class ticket. The seats in our coupe could be readily transformed into beds, but we had to furnish towel, pillow, and linen. The restaurants at all of the eating stations furnished excellent meals at reasonable prices. Russian cookery means the very best cookery. The dishes are plain, well cooked, and digestible. Boiling and stewing are the secrets of the excellency of the Russian kitchen. The third-class passengers are well served at indoor and outdoor buffets, where they can purchase at remarkably low prices bread, sausage, boiled eggs, ham, beef, baked chicken, fried fish, milk, etc. In the interior of Siberia hot and cold water are supplied to the emigrants free of charge. As soon as the train stops, a procession forms of men, women, and children carrying all kinds of receptacles to receive and carry the water to the coaches, where the infusion of tea is made.

The Russians, like other nations, have their favorite drinks, strong and soft. The national drinks in Russia are vodka, tea, and kvass. Vodka is a very strong alcoholic drink distilled from potatoes and rye.

Several brands are made. It is a cheap drink and is the nation's curse. Tea is the universal beverage. The samovar is the pride of every Russian household. The tea is served in glasses with sugar, and a slice of lemon is added for a few more kopeks. In my opinion the Russian tea enjoys an undeserved reputation. I am not a lover or judge of tea, but the many samples I tried seemed weak and tasteless to me. Why the Russians serve tea in a glass instead of a teacup with a cold handle has always puzzled me. I never learned to handle a hot teaglass painlessly, and in the absence of table room it became necessary to shift the glass from hand to hand frequently until the intense heat lessened. Kvass is a non-alcoholic drink, made by fermentation of the dough of black bread. I was satisfied with a tablespoonful of this, to me, repugnant drink. Those who can afford it drink beer. Very little wine is consumed by the middle classes.

We were very fortunate in making the trip through Siberia, so far as the weather was concerned. While our country suffered from broiling heat, the people of Siberia enjoyed cool breezes and at times were even chilled. The short Siberian summer as a rule is a scorcher. I was informed by Dr. Dsirne, of Ssamara, that so far this summer has been the coolest for the last thirty years, while in our own country it has undoubtedly been the hottest. The highest temperature at noontide so far registered by us has been 94° Fahrenheit. The average morning temperature has ranged between 60° and 64° Fahrenheit. The nights have always been sufficiently cool to require a blanket. We have been treated nearly every day toward evening by a shower attended by lightning and thunder. These showers have settled the dust, so that weather and

rain have contributed their best to render the long railway journey enjoyable.

At six o'clock the day after our departure from Ssamara, we sighted the Ural Mountains. At first sight they appeared as a high blue ridge, with many undulations at the crest outlining the higher peaks. As we came nearer the outlines became more distinct, and when we reached the foothills a picture was presented which defies description and the skill of the most famous landscape painter. Standing on the platform of the little station and facing the east, the forest-clad hills appeared in the form of a crescent and over them shone the pale face of the full moon. To the right and to the left at the very footstool of the hills was a birchwood park, the finest I ever saw. In the west was the sky, ornamented with the richest colors painted by the setting sun. The stillness of the evening and the checkered, motley crowd on the platform only added to the impressiveness of the occasion. Who could be unfeeling, irreverent, in the presence of such an exhibition of the grandeur and beauty of nature?

The engine seemed to comprehend what was expected of her in climbing the mountain so close by. She appeared to know that it would require her full strength to carry ten coaches heavily laden with human freight over the incline to the summit of the mountain several thousand feet above the level of the sea. There she stood, trembling with excitement, like a race horse before the start, snorting and puffing, anxious to receive orders to make the laborious ascent. Under full steam we plunged into a valley and soon found ourselves on the bank of a mighty mountain stream, which the train followed for miles, ascending very gradually. The many bends in the river made

many curves, over which the train crawled by a serpent-like motion.

A number of miles from the entrance into the valley we came to a small station. From the platform we could see nestled among evergreen trees on the mountain side, some distance above the crystal clear water of the mountain stream, a handsome white building with wide piazzas—a small but ideal summer resort. This appeared to me a most desirable place for actual rest during a summer vacation. The climate is cool, the surroundings beautiful, and the guests are given an opportunity to divert their minds in a useful direction by fishing, hunting, and mountain climbing. In the dense forests that clothe the mountains from base to peak, large game must abound. Fir, cedar, and birch are the principal trees in the mountain region.

Early next morning we found ourselves on an extensive plain on the summit of the mountain at an elevation of more than 2,000 feet, with the far higher peaks on both sides. The landscape was charming. A dense fog was lifted like a curtain by the rising sun. The dewdrops on the foliage, flowers, and grass sparkled like so many diamonds in the cool, pure mountain air. The scenery on the whole was that of a magnificent park.

We were only a short distance from Kropatchelo station, the highest point. The engine made a desperate effort to complete the difficult task, but at a sharp curve its courage and strength utterly failed, and the train, in the form of a shallow crescent, came to a standstill. The engine gave a mournful signal of distress, which was promptly answered by a sister engine at the nearby station, Slatoust. The engines met, and, after exchanging the customary courtesies,

by united effort soon brought us to the station. At the excellent station restaurant breakfast was served. The city of the same name is four and three-fourths versts from the station. It was founded in 1754, is the capital of the government of Ufa, and has at present 21,000 inhabitants. It is the center of important iron industries and is best known as the seat of a great manufactory which turns out guns and other articles of warfare for the government. The city is beautifully located between two high mountain peaks, the Kossotur and Urenga.

The Ural Mountains lack grandeur, but are pleasing to the eye. The splendid forests, verdure, the natural flower garden, gentle slopes, and wooded, modest peaks make a picture that attracts and fascinates the lover of nature. The descent is as gradual as the ascent, and we reached the boundless plain during the early part of the forenoon and found ourselves in another world, so sudden was the change in the scenery. This great plain, which extends from the base of the Ural Mountains to the Ob River, is almost a perfect level with an incline eastward over this enormous distance of not more than one hundred feet. But what a change in the appearance of the trees, flowers, grass, and the crops! Trees stunted, flowers fewer and lacking in freshness and hue, grass short and sunburned, crops thin, short, and far from maturity. Only the vigorous potato plant remained the same, displaying to a marked extent its aptitude for all kinds of climates and soil. This plain extends to the great Ob River, and it cost us three days to cross it. Toward the eastern part the trees are larger, flowers more numerous and prettier, and the harvest of grain more satisfactory. The most hardy flowers, the marguerite, goldenrod, plantain, milfoil, toad-flax,

wild parsley, and thistle, were our constant companions, while the lady-slipper we left on the mountain, and lost sight of the bluebells and wild clover.

For days my eyes have rested with perpetual delight on the graceful, beautiful birch trees that were always in sight. What attracted my attention first in descending from the mountain down into the plain was the dwarfed condition of this same tree. But what a change! No longer the tall, slender, erect, smooth, graceful, healthy tree, but a mere dwarf. Poor little, stunted, dwarfed, crippled, sickly birch! I hardly recognize you. I was charmed by the grace and elegance of your sisters west of the Ural and on the mountain sides, but what ails you? You are evidently very ill. Has the soil refused food, or have the arctic winds chilled your heart and deranged your circulation? Your body is too small for your arms; besides it is deformed. What has made those ugly bends and the many black spots on your thickened, tough skin? Is it hard work in your attempts to arrest the fierce winds from the region of eternal ice, or are they the result of starvation, restless nights, or the burden of old age? You have lost your gayety and sprightliness of youth and have become prematurely old. You have been made ill by the icy winds from the polar region and your leaves have been scorched by the burning rays of the tropical sun during the short summer months for these many years. What made you leave your genial home on yonder mountain side and become a stranger on this lonely, dreary plain? Was it because you were unpleasantly encroached upon by your stately sisters, or was it because you desired to live a lonely, thoughtful, hermit life? No matter what induced you to leave your home, you must have become aware long ago by

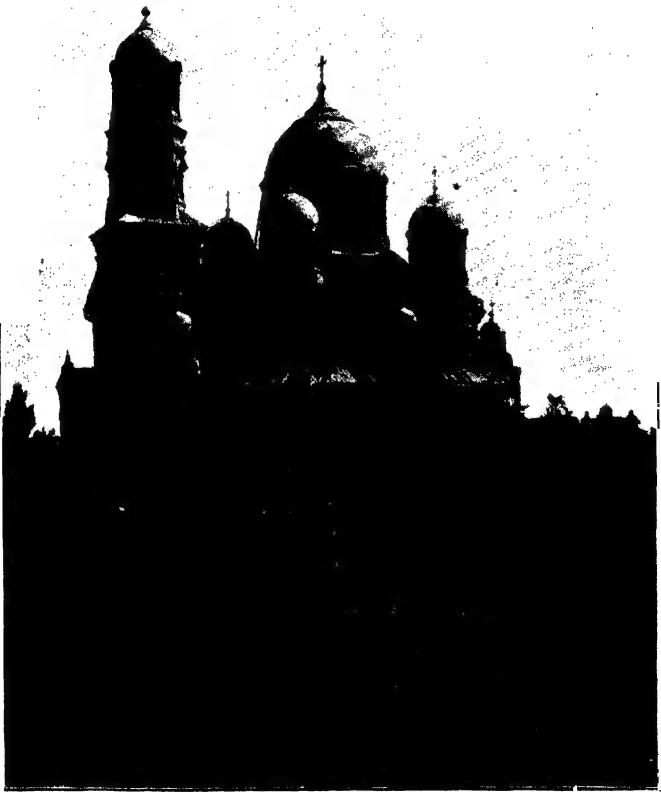
sad experience that in having done so you have made a serious mistake, which, under the circumstances you are laboring under, you are powerless to correct. Such is fate! If I could, I would like to take you with me to America, plant you in the rich soil on a mountain side, where you would be sure to receive the food you need and where you could enjoy the genial smile of the sun eight months out of twelve and drink in the air perfumed with liberty and equality. I know if this could be done the causes of your affliction would be removed and you would recover the health, vigor, size, and beauty to which you are entitled by pure noble birth.

We arrived the following day at Tscheljabinsk in time for dinner. This is a very important station, as another road crosses the railway track here, which makes it the great gathering point for emigrants to Siberia. The city of the same name is four versts distant from the station and contains 20,000 inhabitants. It was founded in 1655. Large barracks with many conveniences have been built near the depot for the thousands of emigrants who annually pass this station.

Petropaulovsk, on the east bank of the Ishim, a branch of the Irtysh, a city with 20,000 inhabitants, is a genuine prairie town. It was founded in 1752. It can be seen for miles before it is reached, spread along the elevated east bank of the river. Here we saw at a distance four dromedaries, heavily laden, coming from the south, wending their way with measured steps in the direction of the city.

The narrow passage into which the compartments of European railway coaches open is familiar to every traveler. Ordinarily this passage answers very well the purpose for which it is made. Occasionally, however, it has been the scene of unavoidable difficul-

ties. Such a plight was witnessed in our car on the first day out. The coupe next to ours was occupied by a Russian professor of geography, who was traveling with his family, wife and three children. The lady was conspicuous for her enormous size and the excess in size was mainly about the waist. On that day she was in the passageway and was intently occupied in taking in the scenery before an open window. As the train was slowing up at one of the stations, Professor Brower, with kodak in hand, was in a hurry to reach the platform. The professor wears a belt of far more than ordinary length. In his haste he wedged himself in between the monster woman and the unyielding wall of the compartment side of the passageway. The sudden jar brought the lady to her senses. Her native apathy prevented what would ordinarily happen under similar circumstances in America—a hysterical scream. Explanations and apologies were out of the question. It was too late for the professor to retreat; it was just as difficult to extricate himself in either direction, and in true American style he continued the course he had chosen. The struggle did not last long, the situation was too critical to procrastinate, more especially as the husband of the female part of the obstruction was one of the interested spectators. The parties concerned in this transaction were quick to recognize their situation and by mutual efforts in opposite directions liberated themselves and cleared the passageway. The blushing professor lost no time in taking the views he had previously selected. The lady took the necessary care to prevent a similar dilemma during the remaining part of the journey by retreating into her coupe or escaping upon the platform whenever she saw the professor advancing in her direction.



GREEK CATHEDRAL.

We reached Omsk late in the evening of the third day. Omsk is one of the important cities on the Transsiberian line. It is situated on the right bank of the Irtysh River, at the junction of the Om. It has 50,000 inhabitants, and is the seat of the general government of the Steppe Province. The salty, sandy soil upon which the city stands prevents all vegetation. It has fifteen churches—thirteen Greek, one Catholic, and one Lutheran. The museum of the Imperial Geographical Society located here contains ethnographical collections from the Steppe Province, industrial articles, a collection of birds, and prehistoric specimens.

It was at Omsk we made the acquaintance of an arrogant Russian dude. Our coupe was locked before we entered the dining-room of the station restaurant. Dr. Mastin finished his dinner first and came to the car just in time to see the dude enter. He was a young man with a blond beard, twisted moustache, and blue eyes, dressed in the height of fashion, carrying a cane that at once would attract attention. He was followed by the luggage carrier. Finding the coupe locked, he forced the door and was about to make himself at home, when Dr. Mastin interfered. We had heard enough of thieves and robberies to place us on our guard. The faultless dress of the young man did not throw off the suspicion of wrong intentions, as the most notorious thieves do business in gentlemen's clothes. As the doctor entered both stood face to face. Language was useless here. When the young man made no move under the determined eye of the doctor, he was tapped on the shoulder and shown the way out into the passageway, followed by his porter. The dude now sought the conductor and made him open the remaining coupes, all of which

were occupied and locked. In one of the compartments were three ladies, one seat vacant. It was this seat the dude wanted. The ladies protested, and after a protracted and somewhat boisterous parley, the ladies came out ahead, and the disappointed dude had to look for quarters in another car. To such an arrogant, puffed-up, good-for-nothing mortal we ought to repeat:

Arrogance creates disgust in some and ridicule in others, more especially if it be shown by an inferior toward a superior.—Livius.

The great plain from the Ural Mountains to the River Ob is a typical steppe. Trees and the numerous lakes have made it a great pasture, instead of a desert, as it would be without these sources of moisture supply. Wednesday morning we arrived at Barnaul, on the left shore of the great River Ob. This is the first city of any importance on the line after leaving Omsk. It was founded in 1738 by A. N. Demidow, who was likewise the first to operate mines in the Altai Mountains. The city has a very rich and interesting mineralogical museum. On the opposite side of the river is the station Ob, with a very good restaurant. The bridge crossing the Ob is more than 2,000 feet in length. After crossing the Ob the landscape suddenly changes. The steppe aspect gives way to heavy timber and the excellent grain crop proves the greater fertility of the soil. The surface is broken up into low, flat hills and about half of it is covered by timber, the birch in the lead. Here we saw again, for the first time since we left the Ural, the fir tree.

We crossed a branch of the Yenisei, one of the great rivers of Russia, at ten o'clock, Wednesday morning, July 31st. This river is about as large as the Missouri where it empties into the Mississippi.

Only one settlement of any considerable size from the Ob to Taiga. Taiga is a new town, which has sprung up with the opening of the Siberian road. The clearing on which it is built is full of stumps. It has two short principal streets, both of which are paved with stone. It looks like our western mining and border towns. The station restaurant furnishes the best of meals. Taiga is on the brim of a dense, primitive forest represented by birch, poplar, fir, and cedar. The steeple-like, proud cedar is a worthy companion of the tall, graceful birch and the gigantic poplar. This is a good place for an enterprising paper manufacturer, if the government would be willing to sacrifice these noble, harmless giants for mercenary use. This magnificent forest continues unbroken for thirty to forty miles, when it gives way to wheat fields and pastures. It is here where the level, wooded plain is converted into a rolling, open country, dotted with farms as far as the eye can reach.

We arrived at Bogotoll station Thursday, August 1st. A little distance from the station the road passes over a flat eminence, with great valleys on either side. To the right could be seen a low ridge beyond the valley with farms alternating with timber lands. At Kassnaja the road crosses the border line between the Tomsk and Yenisei government. By noon Atschinsk station was reached. The city of the same name, with 6,700 inhabitants and two churches, is situated on the right shore of the Tschulym River. From here on, the road ascends upon an easy grade in a hilly country, the watershed between the Botschoi-Kemtsching and the Katscha, and after crossing the latter stream descends to Krasnojarsk.

This stretch of country is well timbered with fir, birch, poplar, cedar, and larch, with occasional open-

ings where grass grows in profusion. The railroad track very gradually reaches an altitude of nearly 2,000 feet. A few huts along the road, made of old railway ties and covered with earth, indicate the homes of the earliest settlers. There is ample room here for thousands of farmers and herdsmen. Many of the little stations are incomplete and gangs of workmen at short intervals are busy in construction and repair work. During the descent from this elevation beautiful panoramic views present themselves.

Krasnojarsk, the capital of the government of Yenisei, founded in 1628, is located beautifully on the right bank of the Yenisei River. It has 27,000 inhabitants and fourteen churches—twelve Greek, one Protestant, and one Catholic. Here is also located a technical school for railway officials and a library of 100,000 volumes, containing many works on Siberia.

The Yenisei is one of the great Siberian rivers and is spanned by a bridge 2,775 feet in length, supported by six arched pillars. We crossed this magnificent river at eleven p. m. Thursday, August 1st. The full moon high up in the horizon was beautifully reflected by the rippling surface of the sluggish stream, which, with the electric lights of the city behind us and a high mountain ridge before us, made a charming, peaceful midnight picture.

Early in the morning on Friday we had reached a subalpine plain at an altitude of 1,000 feet. The trees, in small groups and isolated, were short and stunted. This plain was soon succeeded by a typical prairie, at the distant border of which we came to our breakfast station, Kansk, on the left bank of Kan River. The river at this point is about the width and depth of the Illinois at Rockford. Kansk has a new, neat Greek church near the station. After crossing

the Kan, the road ascends very gradually until an elevation of 1,600 feet is reached. Here the country again assumes a subalpine character with excellent grazing grounds. The trees on this plain are the birch, fir, and larch, of good size and in varying proportions. The first public highway I saw between Kansk and Kljutschinskaja. Whatever the Russian does, he does well, and this public road is no exception to this rule. This road was crossed subsequently repeatedly by the railway track, and as I ascertained later, is the great highway between Manchuria and Nishni-Novgorod, made and kept in repair by the Russian government.

A few miles west of Kljutschinskaja we had the great delight of studying one of nature's most famous paintings. The canvas was two miles in length and about 200 feet wide, and rested against an easy incline of one of the many beautiful hills. The background consisted of a carpet of pale-green fern, decorated with the flora of the subalpine region. The pretty snow-white marguerite, with its central golden disk, peeped star-like through the soft, velvety surface. The yellow and red flowers in various hues demonstrated the inexhaustible resources of nature's studio. The principal figure was the stately birch, unhampered by any kind of undergrowth. On this particular occasion "the lady of the forest" made her appearance at a time of life full of hope and expectation, young, tall, and slender, wearing a silver-gray dress, her beautiful pale face hid behind a delicate veil of emerald green. The picture was illuminated by the midday sun shining brightly from a cloudless, azure-blue sky, casting the graceful shadow of the queen of the forest upon the rich carpet beneath. It was a picture that can never be described, a painting that

no human skill can ever reproduce. For quiet, beautiful, God-inspired scenery, the forests, mountains, plains, and steppes of Siberia cannot be excelled.

At 7:15 p. m. on Friday we crossed the gold-carrying river, Birjussa, and entered the government of Irkutsk. Kamyjschet is a lively village at the station of the same name. A large plant of cement work gives employment to several hundred men.

Saturday morning early we arrived at Nijne-Udinsk, where breakfast was served. The city is surrounded by high hills, is near the Uda River, and has 5,800 inhabitants. Altitude, 1,900 feet; temperature, 60° Fahrenheit; maximum temperature at noon, 78° Fahrenheit; in the sun at 3 p.m., 110° Fahrenheit. To the east of this city a vast fir forest begins, which extends for miles, when almost abruptly it gives way to the birch. After crossing the Uda the country is level and well timbered as far as Polowina. Polowina is an important railway station. The Bjelaja River is a rapid, shallow stream, which at times must become aggressive, as at this point it is imprisoned on one side by a stone embankment. After crossing the river the country again becomes hilly, with subalpine trees and vegetation. Sunday morning we arrived at Irkutsk at 6:30, the expected time.

The journey from Ssamara to this city was slow, on an average not more than nineteen and a fraction miles an hour, but the slowness of the train and the frequent and long stops gave us an excellent opportunity to make the desired observations, and gain a fair knowledge of the country, its people, and its resources. Such a slow method of travel is likely to become tedious for the average American, who is always in a hurry, but the lover of nature finds daily and hourly something new and unusual to engage his

thoughts and enrich his mind. We will remain a number of days in this interesting city and will make the Metropole Hotel, an immense log house, our headquarters.

CHAPTER VII.

THE SEASONS IN SIBERIA—THE SIBERIAN—IRKUTSK AND ITS INSTITUTIONS, HOSPITALS, CHARITIES, AND THEIR ADMINISTRATION.

Learn on how little man may live, and what a small portion of food nature requires.—Lucanus.

ANY one who has not seen with his own eyes the products of the Siberian soil has no conception of its wonderful fertility.

This is the country that presents the most convincing proofs of how little is required to maintain animal and vegetable life. Trees and plants sleep away half of their lifetime. For six months and more life is suspended by congelation of the very life-blood of the trees by the arctic winter, which for the time being arrests all vital functions, which are only restored by the warm sunshine of the beginning summer. There is no spring in Siberia; the transition from the cold winter to an almost tropical summer takes place so quickly that the most beautiful of all seasons is only known by name. The vigorous circulation set in motion by the warm breezes from the south arouses the latent vegetative life to intense activity, and in a few days the bald treetops don a new green cap, which they are only allowed to wear for a short time, when it withers and is cast away by the late fall winds.

The Siberian fall is a season the natives enjoy—a real Indian summer. It is during the short, hot summer that the trees grow, and the new growth compares favorably with that of the trees in a more congenial climate. The long rest, the vigorous soil, the warm



ARCHBISHOP SAFRONI, OF IRKUTSK.

showers, and the stimulating influence of the approaching sun unite in their efforts to compensate for the long winter. The early flowers bud and blossom a few days after the carpet of snow has been lifted away by the warm breath of the returning summer sun.

The seed that nature deposited in the soil the previous fall sprouts, blossoms, and bears fruit with a rapidity that is truly astonishing. Grain sown in May is ready for the sickle during the latter part of July. The wild and domestic animals are clothed by nature's tailor, and live and thrive during the long winter often on a scanty food supply.

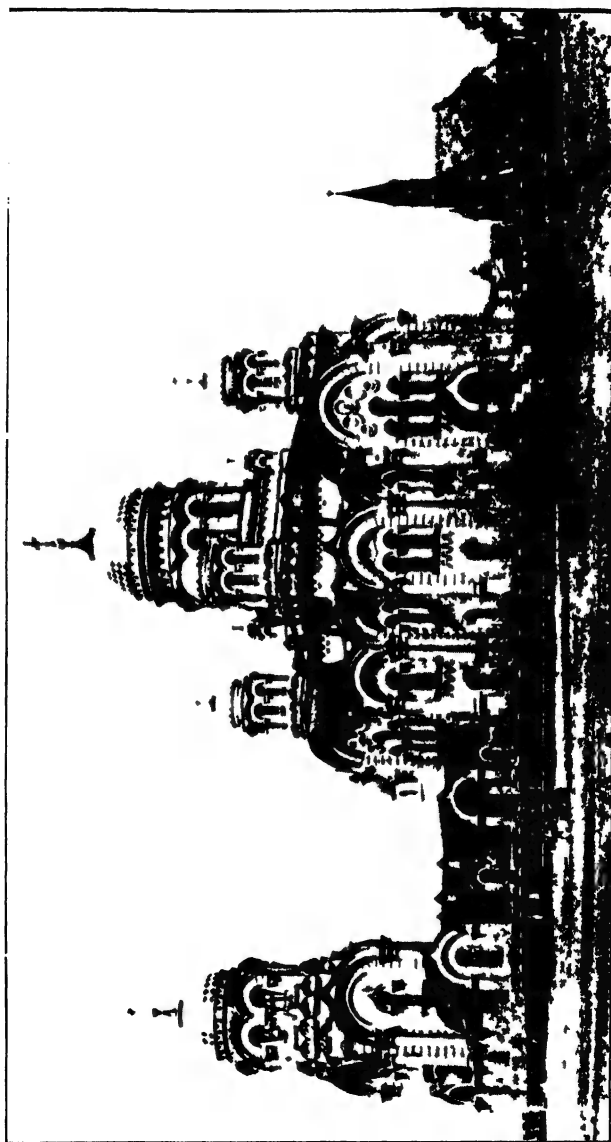
The average Siberian is a splendid specimen of humanity as far as physical development is concerned. He owes his strength and endurance largely to the frugality of his meals. Indeed, nature requires only a small portion of food in all her various departments, and when the reverse conditions prevail, when she becomes gluttonous, speedy degeneration and premature death are the certain consequences.

The Siberian enjoys many things for which the rich in large cities might well envy him; for nature loves and favors the poor more than the rich. It will be a sad day for Siberia when great wealth will come in possession of a few and monopolies will impoverish and crush the middle classes. As long as the sickle and the scythe hold their places in the harvest fields, the poorest of the poor will have a chance to earn an honest living and enjoy life. With the coming of greedy landowners, forest destroyers, department stores, steam plows, reapers, and harvesting machines, poverty and misery will stare in the face of the uneducated peasant who is now enjoying a fair degree of prosperity in this old and yet new part of the world.

The station of the Siberian railway for Irkutsk,

Glaskowkoje, is one of the suburbs of the city. It is situated on the left bank of the Angara River, over which a pontoon bridge establishes a communication during the summer months. Irkutsk, on the opposite side of the Angara, lies in 52 degrees 17 minutes north latitude and 104 degrees 16 minutes east longitude from Greenwich at the point of entrance of the Irkutsk into the Angara. The Angara is a very swift river, 1,800 feet wide where it is crossed by the pontoon bridge. Owing to the swiftness of the current the Angara is open long after the thermometer falls below zero, but during the latter part of December the ice becomes strong enough in a few hours to bear the heaviest loads, by the blocks of ice which the river brings from Baikal Lake becoming arrested in their course and united with each other into one mass by the formation of new ice. The surface of the bed of ice is therefore very rough at first. After the formation of ice and before the river is frozen over, the only means of communication between the railway station and the city is rowboats, and under such conditions the crossing of the river is always a very difficult task and sometimes not devoid of danger. A permanent bridge is sadly needed.

The city of Irkutsk was founded in 1652, and has now about 70,000 inhabitants. It is the seat of a governor-general and a Greek Catholic bishop. Irkutsk is better known than any other Siberian city, and comes next to Tomsk in the number of inhabitants and commerce. It is the most characteristic of all Siberian cities. The streets are not paved and the board sidewalks remind one of a country village. The houses are built of wood, and some of the best residences and business houses are made of round logs. Many of these houses are artistic and their interior



NOVI SOBOR CATHEDRAL IRKUTSK

would compare very favorably with some of the finest residences in our large cities. The absence of pavements is one of the most serious defects of the city, as during the rainy season the streets are almost impassable to foot passengers and teams, and during the dry season the clouds of dust are almost suffocating.

The city government so far has been very conservative. Irkutsk has not a dollar of indebtedness. The spirit of enterprise is beginning to manifest itself. In the central part of the city the log houses are doomed, as a recent city ordinance prohibits the building of new wooden buildings. Street paving has commenced, and in a few years I have no doubt Irkutsk will have a water supply direct from Lake Baikal, good sewerage, tramways, and electric street lighting. Irkutsk is a city of churches. The Kasan cathedral, with five cupolas and a separate bell tower, is an imposing structure. The cornerstone of this building was laid in 1887, and it was completed and consecrated in 1893. Besides the many Greek churches, there is a very handsome Roman Catholic church and a Lutheran church. In the latter, service in the German language is held every Sunday at 10:30 o'clock.

The palace of the governor-general, fronting on the Angara and overlooking this wonderful stream from a high bank, is an imposing structure. The new theater, completed in 1897, after the plans of Schroter, is an elegant building.

Opposite the theater is the museum of the Imperial Russian Geographical Society. This institution is one of the great attractions of Irkutsk. It contains some very rare ethnographical specimens. Its conservator, A. M. Stanilowsky, is an enthusiastic naturalist, and takes great pleasure in explaining the many treasures in his charge to the interested visitor. In visiting this

institution we were favored by the presence of its director, Dr. Makowezki, and Dr. von Bergmann. The skeletons of prehistoric man and animals are the most important features of the many valuable collections which have accumulated here. The stone, bronze, and iron ages of the primitive peoples of Siberia are well represented by hundreds of the most valuable and perfect specimens.

In the coin collection can be found Chinese coin dated as far back as 3,500 years. The original coin was represented by a metallic knife with a dull blade and handle. The next departure witnessed the loss of the blade, and the third was limited to the round disc with a central perforation, which still does duty under the name of cash.

Among the mounted large game of Siberia may be seen the yak, the wild ass and boar, two kinds of antelope, deer, reindeer, elk, and wild goat. The bird collection is very large, including many specimens from China. The religious life of the pagan tribes is also well represented, as well as the temple service of Buddhism. The collection of minerals and valuable stones represents the unknown wealth of the Siberian Mountains. In the main street of Irkutsk (rue Grand) are several department stores on the American plan.

Irkutsk is an important military station. At the present time the larger part of the military force is in camp five versts from the city, drilling and maneuvering and receiving instruction in sham warfare. The governor-general's palace and other public buildings are well guarded by the troops remaining here. The military hospital is a large, square, massive building, erected thirty years ago. It contains 260 beds and is in charge of a medical director, Dr. Aftanomow, and five surgeons. It is located on a high elevation in one



PRINCIPAL BUSINESS STREET.

of the suburbs of the city and commands a beautiful view of the turbulent Angara. Although the building and its equipments are somewhat antiquated, the utmost cleanliness prevails everywhere, and all of the patients are treated in accordance with modern methods and in the most humane manner.

Here we saw among the wounded from the late Chinese war, one poor fellow who had received a gunshot wound in the thigh, and upon whom as a last resort amputation at the hip joint had been performed at the urgent request of the unfortunate patient. Typhoid fever is quite common at the present time in Irkutsk, and we saw a number of very grave cases in this hospital. During the summer the patients live in barracks. Barber surgeons and sisters of the Russian branch of the Red Cross are in immediate charge of the patients. The hospital pays fifty kopeks a day to the Red Cross association for each one of its nurses.

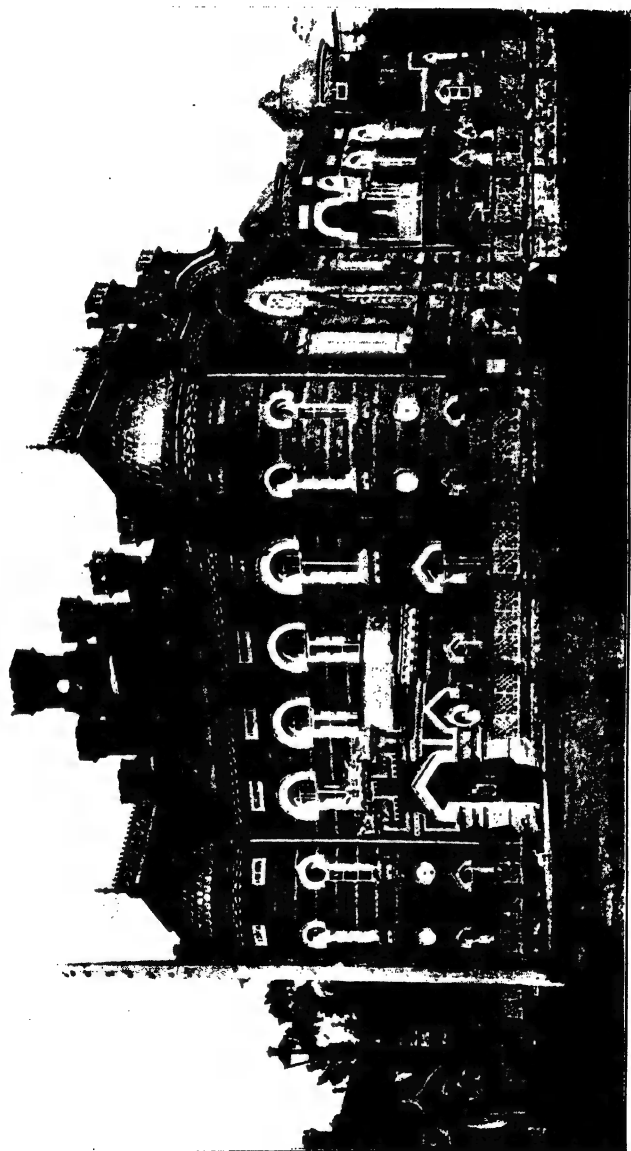
In this institution instruction is given to male barber surgeons who, after their graduation, receive thirty rubles a month for their services. The pupils entering this school have only an elementary education, and the instructors unite in saying that it is an exceedingly difficult matter to make them comprehend and master the subjects which the regulations require to be taught. They serve as assistants in the operating and drug rooms and are at the head of the nursing department. Venereal diseases prevail to an alarming extent among the soldiers stationed here. These patients occupy isolation wards in the winter and separate barracks during the summer.

The patients who interested me most were those suffering from scurvy (scorbutus). This is a disease supposed to be caused by lack of vegetable food. Scurvy used to be the scourge of all north pole expedi-

tions. The ration of the Russian soldier includes onions and potatoes, and yet this disease is quite common, more especially during the early months of summer. We were shown at least a dozen cases representing the different phases or stages of the disease. The most dangerous form is characterized by profuse hemorrhages from the bowels and bleeding from the gums. Another variety manifests itself by bleeding between the muscles of the leg and thigh, and the Cossacks are particularly prone to this form of the disease. Subperiosteal hemorrhage is frequently seen and gives rise to a spindle-shaped, painful swelling over the long bones affected. More than one of the military surgeons present were inclined to believe that scurvy is a microbic disease. One attack appears to predispose to another rather than create an immunity.

The city or general hospital, for the relief of the injured and sick poor, was built in 1871. It has a capacity for 250 patients, and is supported in part by the government and charitably disposed citizens. The patients who are able pay nine rubles a month. The building is in a handsome park near the right bank of the Angara. It is presided over by a chief surgeon, Dr. Korzigin, and five attending physicians. The latter are recent graduates, who receive a salary of 900 rubles a year. The furnishings and beds are of a somewhat primitive nature. The outdoor department takes care of from sixty to eighty patients daily. Red Cross nurses and female barber surgeons do most of the nursing.

In this hospital female barber surgeons are educated. The pupils are the daughters of the middle class, with a common school education. After graduation they receive a small salary. Their services appear to be acceptable to the medical staff. After



IRKUTSK MUSEUM.

they receive their license, after four years' study, and have passed a satisfactory examination, they are required to take additional courses in gynecology and obstetrics in the Foundlings' Home. On inquiry I ascertained that these women sooner or later abandon their profession when an opportunity for a desirable marriage presents itself.

We had the satisfaction of witnessing some of the operative work of the chief surgeon during our sojourn in the city.

The department for the insane is much overcrowded. It is the only place where the insane of eastern Siberia are properly cared for. Among the inmates we saw a number of confirmed, notorious criminals. One of the women had poisoned her whole family. Another one, a Buriat, committed infanticide and matricide, and not satisfied with the last act, completed her course of fiendish wickedness by feasting on the flesh of her own mother. The most degenerate, wretched criminals I ever saw are confined here.

It is interesting and consoling to know that insanity is as yet not prevalent in Siberia, as only four in every million inhabitants are thus affected, and this contingent comes mostly from manufacturing towns. A pleasing change was made when we left the wards and outdoor inclosures of clouded minds and entered a beautiful vegetable and flower garden managed entirely by the inmates of this unhappy department of the great public beneficiary. The vegetable garden was particularly attractive. It contained lettuce, beans, peas, potatoes, cauliflower, cabbage, carrots, onions, parsnips, and melons, and we were informed that the vegetable supply from this source proved adequate for the whole institution during the entire year.

Irkutsk, in the interior of Siberia, thousands of

miles distant from any of the centers of education, furnishes an interesting object lesson to the entire world in its many humane and charitable institutions. Some of its older citizens have grown wealthy through legitimate channels that were opened to them by an active business career long before the whistle of the locomotive disturbed the quietude of the little inland city. Some of these millionaires felt that they had a duty to perform toward the city that gave them the opportunity to accumulate wealth. In this regard the good millionaires of Irkutsk have set an example worthy of imitation. A number of the many Greek churches were built by money from private sources. One of these churches was built at an expense of over \$300,000, and all the money was contributed by a single individual. Where is the church in Chicago that can relate a similar story?

The Polytechnic Institute, a counterpart of the Armour Institute in Chicago, was built and adequately endowed by another of Irkutsk's public spirited citizens. But the institutions of charity that I am particularly anxious to mention and describe are the Foundlings' Home and Children's Hospital, the creation of a single family. The very mention of these noble institutions ought to be enough to make many of our multi-millionaires blush with shame.

One of the noblest institutions is Basanoff's Children's Hospital. It was built and endowed by the Basanoff family. It is surrounded by a large park and is located on an eminence overlooking the Angara Valley. It has accommodations for 225 beds. Children from two to ten years of age are admitted and treated free of charge. A number of permanent barracks serve as isolation wards for the acute infectious diseases, smallpox, measles, and scarlet fever. The



CITY HALL, IRKUTSK.

hospital was undergoing extensive repairs at the time of our visit. The medical treatment and management of the hospital is in charge of Dr. Jurgenssen, assisted by two resident physicians and four female barber surgeons. The Red Cross nurses take care of the sick. The little children receive the best of food and careful nursing. The endowment is ample for the maintenance of the hospital and the improvements that are being annually made. Among the chronic affections special mention must be made of rickets and tuberculosis.

On admission the children are bathed and are furnished with clean clothes, when all those not previously vaccinated undergo the operation. The government has subdued the anti-vaccination disturbances by giving prizes to communities that can show a good vaccination record. This inducement has done more than bayonets in furthering the cause of vaccination among the common people. The many scarred faces in this part of Siberia show to what alarming extent smallpox raged before vaccination was generally practiced.

The same family that made provision for the sick poor children of Irkutsk and east Siberia has not forgotten the young mothers and infants. The Foundlings' Home is what its name implies—a home for infants from the time they are born. It is a charity in the highest sense of the word. The principal structure is a stately building in one of the best parts of the city, with ample grounds for outdoor play room and flower gardens. The family bought the ground, paid for the building, and left it an endowment of 600,000 rubles, which is invested at four per cent. interest. The interest more than pays for the running expenses.

Infants a few hours old up to two years and young mothers who expect to be confined are admitted and treated free of expense. The day we visited the institution three births had already taken place and two more were expected before night. The matron is a genial, motherly-looking woman of middle age, brimful of energy, and evidently endowed with excellent business qualities.

Dr. Pachomkoff is the physician in charge, assisted by a number of female barber surgeons and midwives. It is in this institution that the female barber surgeons receive their instruction in gynecology and obstetrics. It is also a school for midwives. The best proof that the management of the institution is in the best of hands is the fact that not a single case of puerperal infection occurred during the last year, and that the infant mortality was reduced to twenty-three per cent., against thirty per cent. the year before. A large number of healthy, vigorous, neat wet-nurses, who receive nine rubles a month, room, board, and washing, furnish the youngest infants with breast milk. Later artificial food takes the place in part or whole of the mother's milk. Infants admitted into the home are weighed, washed, clothed, and baptized at once.

It is interesting to know how they receive their name. The Greek Catholic church has a saint for every day in the year, and the child's first name is the name of the saint of the day on which it is baptized. The family name is always the same—Romanoff—the name of the ruling house of Russia. The children are all vaccinated at the age of three or four months. The institution has full charge of the children until they reach the age of six, when they are disposed of by adoption. If for any reason they again become



BASANOFF FOUNDLINGS' HOME, IRKUTSK.

orphans, they can return to the home for aid and counsel. The surplus of the annual income is spent in making improvements. This institution differs from a similar much larger one in Moscow in that it is in no wise under the control of the general government.

Where is the city of similar size that can show anything approaching the noble charities of Irkutsk? This comparatively small city in the very heart of Siberia has a number of institutions devoted to the care of the sick poor and orphans, founded and permanently endowed, that speak volumes of praise for a number of its wealthy and charitably disposed citizens. One of these should not be forgotten.

The orphan asylum shelters, feeds, and clothes the fatherless and motherless children of Irkutsk and the districts contributory to that city. It owes its existence to the philanthropic spirit of Mme. E. Medvedknikoff. In size and general appearance the Medvedknikoff Orphan Asylum resembles the Children's Hospital. It constitutes a link which connects the Foundlings' Home with the Children's Hospital. In visiting these different charities I was impressed with the liberality practiced so unselfishly by a number of the most estimable families of Irkutsk. What a source of delight it must be to these families and their offspring to see with their own eyes the fruits of charity blossom and mature. Should such a noble example not incite many of our wealthy citizens to do likewise?

One of the great obstacles in our country and elsewhere to the imitation of such inspiring examples is the insatiable greed for more wealth. The thirst for more riches is only too often in the way of benefiting more frequently and substantially the poor, the sick, the orphans, and widows. To all who have accumulated

wealth and fail to share it with those who are entitled to their aid, Horatius speaks in the following language:

Why does any man, who deserves not to be poor, live in deep distress, whilst thou art wallowing in riches? Why are the ancient temples of gods falling to ruins? Why then, wretch, dost thou not spare something of the treasure for thy dear country? Thinkest thou that thou alone shalt always bask in the sunlight of prosperity? Thou future laughing stock to thy deadly foe!



INDUSTRIAL SCHOOL AT IRKUTSK.

CHAPTER VIII.

A PROPHECY OF PROSPERITY—THE RUSSIAN PRIESTS AND RELIGION—FROM IRKUTSK TO BAIKAL LAKE—THE TRANS-BAIKAL TRAIN—BEAUTIES OF THE TRANSBAIKAL—THE BURIATS—BRILLIANT FLORA—A BREACH OF MANNERS—ARRIVAL AT BAJAN.

*Adversity tries men, and virtue, undaunted, climbs
by rough paths upward to glory.—Italicus.*

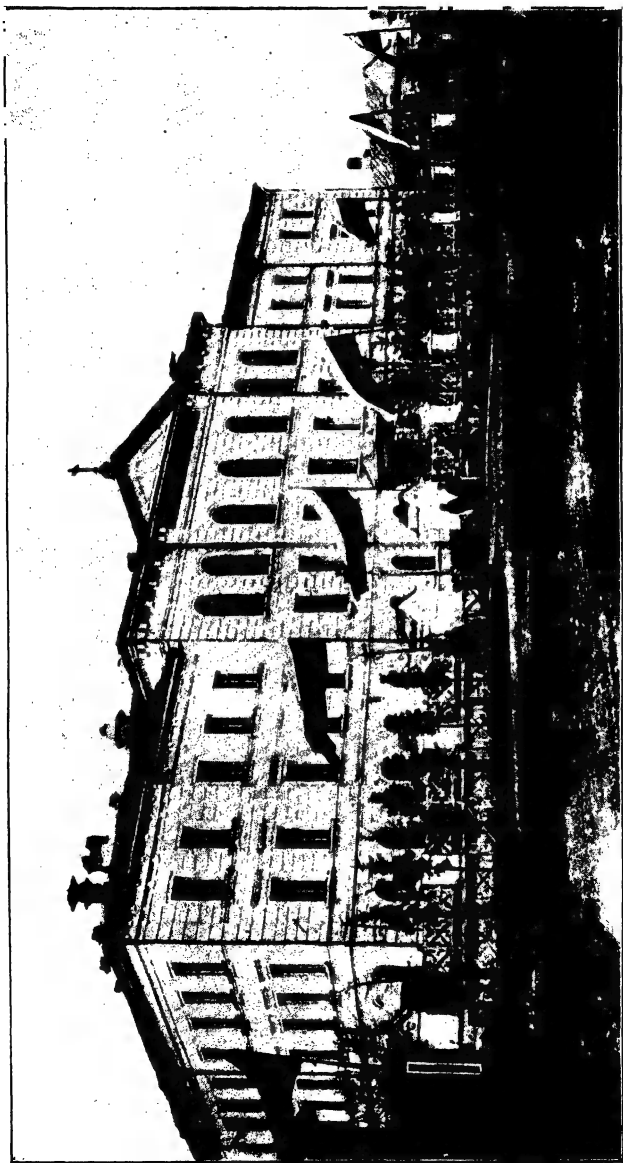
I HAVE repeatedly made the statement that, until the present time, Siberia has been decidedly the land of the poor. From what I have seen and heard since I have penetrated the very heart of what has become to me the strangest and most interesting of all countries, I have no reason to doubt that poverty will soon give way to prosperity.

The very vastness of the country and its enormous resources would warrant such a prophecy. Its mineral wealth, as yet unknown, may prove to be of a magnitude of which as yet we can form no conception. Its enormous timber wealth alone is enough upon which to predict for this country an era of prosperity. The fertility of the soil in many parts of the country is phenomenal, and all the farmer needs to make himself prosperous is an accessible market and cheap freight rates. These facilities will be supplied ere long by a willing and accommodating government. The great Transsiberian railroad will throw out its arms in all directions, octopus-like, and absorb and carry the products of the soil at a rate that will make farming and cattle-raising not only a supporting but also a remunerative occupation. Beet sugar and the manufacture

of woodenware at no distant time will provide remunerative employment to thousands of willing hands. The early settlers are the ones who have been under the yoke of adversity, and it will be their children and grandchildren that will live to experience an age of prosperity. It is a repetition of what took place in our country, where the first settlers did the hard work of clearing the fertile lands and the children reaped the fruits of their labor and hardships.

Before describing the journey by rail from Irkutsk to Sytchensk, I desire to dwell very briefly upon a few things that engaged my attention on my trip through European Russia and from there into the interior of Siberia. The priests of the Greek Catholic church, by their unique garb, always attract the attention of the traveler. On this, my second trip through Russia, I paid more attention to their faces than their clerical robes. The long hair and untrimmed beards are evidently intended to represent our Savior as painted by the old masters. I believe these parts of their earthly, perishable bodies are about the only things that would serve as a comparison between the servants of the Greek church and their Master. I feel confident that Raphael and his disciples would never have selected any of the priestly faces for a model to represent the Son of Man. Many of these clerical faces were not only unrefined, but absolutely repulsive, and often did not portray a single intelligent line. Remove their priestly robes and substitute for them a blue or red flannel shirt, a belt with revolver and dirks, and they would make excellent models for the artist with an order to paint typical brigands.

The unfavorable impressions the majority of priests of the lower order made upon me gave an incentive to know more about the religion of Russia.



THE NIEDVEDNIKOFF ORPHAN ASYLUM, IRKUTSK

The Russians are a very religious people. The religious sense is present with men as well as with women. External piety is practiced by all men, women, and children, rich and poor, educated and ignorant, whenever and wherever the regulations of the church demand it. The first thing the Czar has to do when he comes to the Kremlin is to make his devotions before the icon at the holy gate before he can enter. The public services are well attended by both sexes, and the sign of the cross is made before every open church, and in passing the many icons; kneeling and kissing the floor are common practices during prayer in church. The religion of the original inhabitants of Russia was worship of nature. There was no priesthood. In the year 988, under the reign of Duke Vladimir I., Greek monks brought the Greek Catholic, the true religion, from Byzantium to Kiev, where Vladimir led his people to Christianity by mass baptisms in the Dnieper. Vladimir himself was baptized at Korssun.

The introduction and spread of the new religion found no opposition. Under the reign of the Mongolians, which did not affect the church and the ruling Russian princes, Prince Iwan Kalita, in 1318, transferred his court to Moscow, and this city was made the center of the church. Russia grew stronger and threw off the Mongolian yoke; the church of Russia had already ignored the authority of the Byzantine church and separated itself slowly from the general religious movements of western Christianity. The efforts of the popes to reunite it with the Roman Catholic church failed. In 1591 the Oriental patriarchs recognized the Moscow Metropolitan as the fifth patriarch. In the middle of the 17th century, under the reign of Czar Alexis Michailowitsch, the Moscow patriarch, Nikon,

placed himself at the head of a movement to revise the external ceremonies and the liturgical books of the Russian church. In a concilium held in Moscow in 1672, the service was sanctioned, and it was decided to introduce the same into the church, after it was confirmed in Jerusalem in 1672. Those who objected to this change and separated themselves from the mother church on this account call themselves unto this day Raskolniki (separated) and Starowjerzy (old faith). The cleft became wider later.

Peter the Great united the church more intimately with the state, in that in 1700 he did not fill the vacancy of the patriarch's chair, and in 1721 placed the "Holy Synod" in place of the personal highest government of the church. The Holy Synod is composed of the highest priests of the church selected by the Czar. Its presiding officer is the Metropolitan of St. Petersburg. The Czar is represented by the chief procurator, a layman, who presents to the synod the different subjects for consideration and without whose consent no action is lawful. In 1764 Catherine II. confiscated the church property and in its place inaugurated fixed salaries.

European Russia is divided into bishoprics, three of which, St. Petersburg, Moscow, and Kiev, have a bishop with the rank of metropolitan, each in charge of all church affairs. The entire clergy is separated, not by law but by custom, into two factions, the black or cloister clergy, the representatives of Greek traditions, and the white or world clergy, wearing garments of a brown or other dark color, the representatives of the national element. The former are celibates and occupy all of the high offices in the church, metropolitans, archbishops, and bishops, archimandrites and priors.



The world's clergy is composed of protopopes, who are prohibited from performing any of the priestly acts. The in-the-world clergyman must be married, but if his wife should die he may enter a monastery. Much rivalry and ill-feeling exist between the monks and the worldly priests, and these quarrels are a characteristic peculiarity of the Russian church. The monastery clergy has the exclusive leadership of the church by filling from its ranks the highest positions in the church and in conducting the seminaries and academies, and carefully protects its interests. Another peculiar feature of the Russian church is the many sects in the church itself, arising mostly out of the liturgic reforms of the Nikon and Peter the Great. Most of these sects differ from the mother church and among themselves only on the surface; the importance these sects have received we can judge by the religious zeal of the people. The relation of the clergy to the people is here not the same as in our country. The priest is not the pastor of his church, but only the carrier of the cultus, the dispenser of the holy sacraments. He is respected more for his office than for his person.

In cities, as well as in the country, may often be seen bareheaded priests collecting money for building a church. Of the money collected nothing is spent for personal wants, and after years of patient work they return with several thousand rubles, which are delivered to the congregation in need of a church. During my tour through Russia and Siberia, I have seldom been out of sight of the in-the-world priests. They are not attractive personages by any means. They travel comfortably, and in the restaurants live as well as the well-to-do passengers. Like all other Russians, they are fond of tobacco.

It seemed to me that with most of them the holy office was the means of earning an easy and comfortable livelihood. What I saw in churches and in public places and thoroughfares also made the impression upon me that the Greek religion is more on the surface than a concern of the heart; in other words, it consists largely of ceremonies which are mechanically performed. On Sabbath day all of the peasants were harvesting and haying.

Next to the Greek church in number of communicants comes the Roman Catholic church; its head is in Poland and adjacent provinces. Among the Protestant churches, the Lutheran denomination takes the lead. It is strongest in Finland, Poland, and the German colonies in southern Russia. The German Reformed church has large congregations in St. Petersburg and Moscow.

The imperial coat-of-arms of Russia is significant and explains the relation of the Czar to his people. It consists of a double eagle surmounted by a crown. The right eagle holds in his talon a sword, the left one a globe upon which is planted the Greek cross; the former emblematic of his military power, the latter of a still greater power, the Greek church, of which he is virtually the head, the central figure, the pope.

During our few days' visit at Irkutsk we were greatly aided by Dr. George von Bergmann, a nephew of the famous Berlin professor. Through his courtesy we were enabled to visit in rapid succession and with the desirable degree of thoroughness all charitable and public institutions, including the military hospital. Dr. von Bergmann has been in the military service for three years and is now stationed at Irkutsk as one of the surgeons of the military hospital. He has recently opened a private surgical clinic, where we witnessed



LAYING A CORNER STONE, THE CHIEF METROPOLITAN.

one of his operations for appendicitis. In his ideas and practice he is thoroughly modern, and it is safe to predict for him preeminence in surgery in Siberia. He has had a most excellent training under his uncle, Prof. von Bergmann, the most prominent surgeon of Berlin. He was able and willing to communicate to me many important points and facts pertaining to the medical department of the Russian army. We remained at Irkutsk longer than we had intended, owing to heavy rains in the Transbaikial region, which had caused a number of washouts, intercepting for nearly a week the regular trains.

We left Irkutsk Thursday, August 8th, at 10:25 a. m., by rail. The road follows the Angara valley as far as Lake Baikal, and we were constantly in sight of this clear, rapid stream. This part of the river is full of small islands, some so small that the hay produced could be carried by a man without any great tax on the muscles. Some of the larger islands are lightly timbered. The road-bed at many points is considerably above the level of the river, cut shelf-like out of the rocks of the foothills of the Baikal Mountains. The wide valley, the tearing river, the many islands, and the wooded mountain sides afforded views that never tired the eye. Although Baikal Lake is only sixty-four versts from Irkutsk, it was two o'clock in the afternoon before we reached Baikal station on the shore of the lake.

Baikal Lake has a well-deserved reputation at home and abroad. Every traveler over the Transsiberian road is in constant expectation until he reaches the lake, and when he has seen it he can only join those who have preceded him in singing its praises. Baikal Lake is a subalpine lake, as it is situated 1,428 feet above the level of the sea. A number of rivers and

streams of considerable size enter the lake and the Angara is its only outlet. The high level of the lake and its many feeders explain satisfactorily the swiftness of the current of the Angara. The length of this lake is 370 miles and it contains 17,750 square miles. By way of comparison, Lake Michigan is 340 miles long and contains 22,400 square miles. The lake is of great depth, at some places almost fathomless. The bed of the lake is long, narrow, and deep, which with its inlets and its outlet, the Angara, make it appear rather as a widening of a river than a lake. The water is clear and of a light-green color. Baikal Lake, besides being one of the largest sweet-water lakes in the world, is a very mysterious lake. It is called by the Mongolians Dalai-nor, the holy sea, or Bai-Kul, the rich sea.

Its flora and fauna are exclusively of salt-water origin. This is the only body of fresh-water inhabited by the seal. The Baikal seal is of the same size and looks like the salt-water seal, but its fur is very long and rough. The lobster family alone is represented by 240 varieties. Scientists are still engaged in unraveling the mysteries of this lake. The prevailing opinion now is that originally it was in direct communication with the Arctic Ocean, and that by the rains and the numerous inflows of fresh water the salt has been gradually washed out, and that the surviving sea animals have undergone a gradual change in consequence of the gradual alteration of their environment.

I had an opportunity to examine many specimens of the fauna and flora of Baikal Lake in the Irkutsk museum, and this collection is certainly unique in showing the gradual transformation of animals in consequence of the changed conditions of the media in which they



BAIKAL

live. The Baikal is very rich in fish, and it is undoubtedly on this account that it has received the name "rich sea." The omul, a kind of small salmon, is only found in this lake and in the Arctic Ocean. It is a very good fish and is eaten largely by the natives in the pickled and cooked forms, like herring. The travelers and sailors give Baikal Lake a bad reputation. Storms of unusual severity are likely to come on without warning. The quietest season on the lake is during the months of June and July. The water of the lake and the Angara is very cold, and on the lake a very cold breeze may come suddenly during the warmest days of summer. On the day of our arrival at Baikal station the dock of the icebreakers "Baikal" and "Angara" was being repaired, and hence we did not see these huge ferryboats until we had crossed the lake. Baikal Lake is penned in by the high tree-clad Baikal Mountains. The scenery from the shore and steamer is superb. The glorious sunset we witnessed was in itself worth a trip to Siberia.

We crossed the lake on a staunch screw steamer and, although the weather was all that could be desired, the short, choppy waves disturbed the stomachs of a number of our passengers.

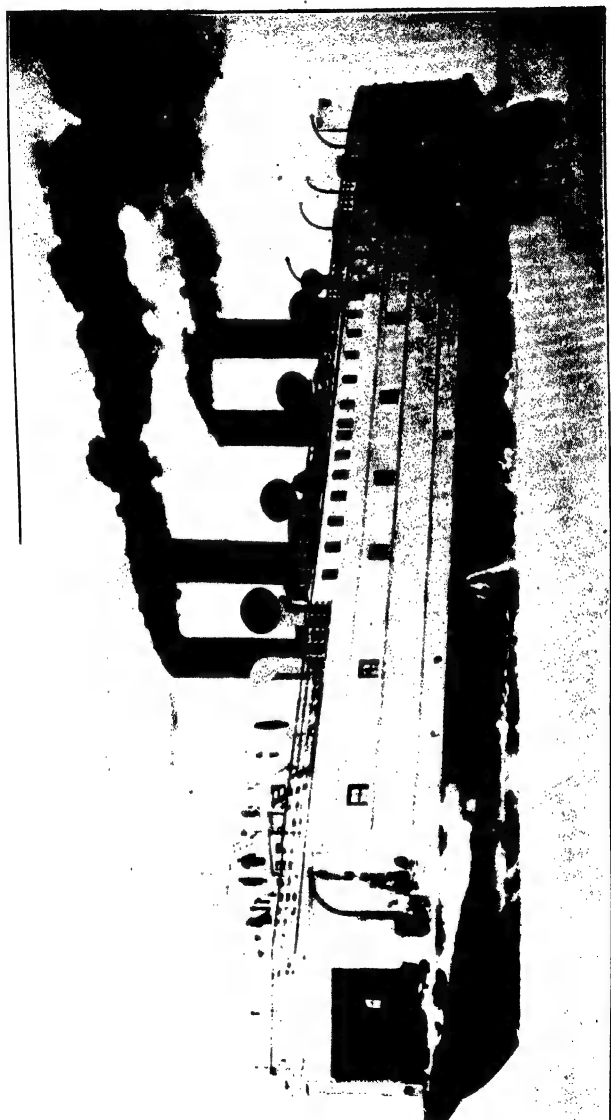
The lake trip makes the connection between Baikal station and the station on the opposite side of the lake, Myssowaja, and is made in four to five hours. Myssowaja station is on the southeast shore of Lake Baikal. Here the Transbaikal train was made up. It was a mixed train and consisted of first, second, and third-class coaches, and a number of freight cars. We left the station at 1 a. m. Friday.

From here the road follows the course of the lake shore to Possolskaja, where it enters the wide valley of the Sselenga. The road ascends very gradually,

following the left bank of the Sselenga, quite a wide but shallow river. Friday morning at the breakfast station, Verkhnye-Udinsk, we had reached an altitude of 22,500 feet. Before reaching the station, the Sselenga was crossed over a bridge 1,635 feet in length. Verkhnye-Udinsk is a city of 8,000 inhabitants, beautifully located at the junction of the Uda with the Sselenga. It is the seat of government of the west Transbaikal district. From here a well-made highway leads to Hjachta-Maimatschin, on the Chinese border, the center of the greatest tea market for Russia. Soon after leaving this station the Uda is crossed. Onochoi is a large village inhabited by Mongolians and Buriats. At the dining station, Saigrajewa, is a cement mill which gives employment to a large number of laborers who inhabit the village.

My conception of the Transbaikal country was entirely erroneous. I expected to find an impenetrable mountain region with snow-capped peaks, inhabited along the line of the railroad only by employees. To my utter astonishment we found here the most picturesque scenery on the entire line. Beautiful, wide valleys with flowing streams of pure water, and the lands under high cultivation; large farms and pastures fenced in, and the best country roads we had so far seen. The farmhouses are larger and more modern. The high mountain ridges on each side of the valleys are heavily timbered, almost exclusively by fir. In this region are found the finest fir forests in the world, the trees of gigantic size and as straight as an arrow. The farms often extended quite a distance over the base of the foothills.

At seven in the evening we arrived, after a long, steady ascent, at Kisha, where our barometer registered 3,500 feet altitude. In approaching Kisha, the valley



AN ICE-BREAKER, BAIKAL.

gradually narrows and is lost at that point in a high mountain plain lightly timbered and with plenty of good pasturage. From here the road descends slightly to Petrovsky—Zavod. Here are famous iron works founded in 1790.

The inhabitants of the Transbaikal are Buriats, a Mongolian tribe. They resemble the Chinese very closely and Chinese blood flows through their veins. They are not particularly fond of hand labor, but appear to good advantage on horseback. The women ride as well as the men. The men are slim, but strong. The eyes are decidedly Chinese, as well as the hair, which is coarse, straight, and black. The face is flat, nose broad, nostrils large, malar bones prominent. The color varies from almost a pure white to very dark. They do very little farming, but make good use of the vast pasture lands. Very few of the Buriats belong to the Greek church; most of them are Mohammedans, some Buddhists, and some have remained pagans, worshiping different kinds of idols. These people are ruled to a certain extent by chiefs, who administer local affairs, otherwise they are subject to the Russian government and its laws. The Buriats are exempt from military duty, but are not averse to voluntary military service. They are fond of hunting and have remained faithful to the bow and arrow in slaying the game. The bear is killed by stabbing with a large knife in a hand-to-hand encounter. This kind of hunting is done on snowshoes or with the aid of dogs. The Buriat women are short, fat, and very homely. They dress in half Chinese and half European fashion. One of the Buriat chiefs accompanied us for quite a distance on the train. He had with him two attendants and much personal baggage, and at the eating stations always managed to select the best that

could be had. We were informed that he was a man of great influence in his community. He happened to be the same chief whose photograph in national costume I bought in Irkutsk, and which is reproduced here.

All of the wild flowers of Siberia are pretty, but nature reserved her greatest skill in painting them for the flowers of the Transbaikal. The soil of the Transbaikal region is light, but the size of the trees and plants indicates its great fertility. There must be something in the soil or air of the Baikal Mountains that is particularly conducive to the flower kingdom of that region. The plants and flowers are noted for their size, verdure, and richness in color. The buttercup wears a corolla at least an inch in diameter. The little daisy grows in large bunches with flowers of enormous size and exquisite beauty. The little bluebell, so small and delicate in our country, is a giant here and wears from a half dozen to two dozen pairs of bells. The blue gentian is painted here by Nature's artist from a light blue and azure blue to almost an indigo blue. The blossom of the wild clover displays a fiery-red color. The toad flax (*linaria vulgaris*) is of unusual size and its labiate corolla might be mistaken for an artificial product made of the purest of old gold. The verbenas, with their tiny azure-blue flowers, are in striking contrast with the verdure of the grass, among which they modestly make a vain attempt to hide themselves.

The goldenrod, with its long raceme of sulphur-yellow flowers, would take the first prize at a wild flower show over its sisters from all climes. Nature has been more profuse in its distribution of color here than in any other part of the world. The petals of the tiny *capsella bursa pastoris* are whiter here than anywhere else.



A GROUP OF TRANSBAIKAL PEASANTS.

Even flowers that make no pretension to color in other countries and localities take on paint here. The color of the milfoil varies from marble white to a roseate hue and light blue, a freak of Nature which is certainly unique, showing a lavishness on the part of Nature's studio. The only regret I experienced when admiring and studying the Transbaikal flora was that I did not have the privilege of seeing the lady-flowers that decorate the virgin grass a few days after the disappearance of the heavy blanket of snow, as I felt assured that they surpassed in beauty their successors of the midsummer season, that appeared to me to be perfection itself. What a pity the kodak is powerless in reproducing Nature's paintings! How in perfect are its colorless reproductions of Nature's best efforts!

The Siberian bluebell, one of the many gems of the variegated flora of Siberia, is the same here as in America, only it appears here in a new form and a new dress. It enjoys a great popularity in this country, as it is found on the steppes, the river banks, the mountain plains, and mountain sides. It has all kinds of neighbors, but always remains the same charming, good-natured little bluebell. How this delicate flower defies elevation and the arid steppes upon which it intrudes itself everywhere is somewhat difficult to comprehend. It is, however, true that the traveler seldom loses sight of this beauty of the mountains, valleys, and steppes. Its wood-like, round stem is amply clothed in a mantle of lance-shaped, serrated leaves. Its pride, however, is the bell-shaped blue corolla with its brim fringed with five inverted heart-shaped prominences, corresponding with the ribs of the bell. The color of the Siberian bluebell varies from a light, delicate blue to a dark, almost indigo blue. It is this great variation in the amount of coloring material that

constitutes the special feature of the bluebell in this land of flowers. The many varieties of asters of different heights and many hues add much to the fascination of the Transbaikal flower garden.

The flowers in this region are not permitted to live a long life, the icy fall winds doom them to a premature grave, but while they live they enjoy in full measure all this world can supply for their happiness, a virgin, fertile soil, warm sunshine and rains, and an atmosphere charged with ozone and laden with the resinous perfume from the boundless forests.

On Saturday morning we were at an elevation of 3,670 feet, on a high mountain plain bounded on both sides by lightly timbered ridges.

No attempt is made at farming at this elevation. Human habitations are of the most primitive kind, few and far apart. The splendid pasturage is mostly idle. The scenery at times is of the most pleasing character. At three o'clock we had ascended the ridge of the Jablonoi Mountains and the aneroid barometer registered 4,000 feet of altitude. This is the highest ridge, the boundary between west and east Transbaikal, and the watershed between the Pacific Ocean and the Polar Sea. Near the summit of the ridge is a short tunnel with an artistic door-like entrance and exit, hewn out of solid rock. From this point the descent begins and the road enters the narrow and tortuous Ingoda valley.

The Transbaikal edelweiss (*leontopodium* Siber, Cass), one of the most remarkable specimens of the Siberian flora, deserves special mention. The edelweiss is the queen of all the alpine flowers of Switzerland. Switzerland is its real home, and there it can be found only above the tree-line among the rocks near the eternal snow. It takes a good guide and a reliable



BURIAT AND WIFE.

alpine stick to find it in its remote hiding places. Few travelers have the necessary courage, strength, patience, and endurance to pluck their own edelweiss; most of them prefer to buy their supply for friends and as a memento of their visit to the land of mountains and glaciers. In one of the books on Siberia I had read an account of the existence of this flower in certain parts of the high mountain plains of the Transbaikal region. In passing through this part of the country I spent hours and days in looking intently out of the car window to discover this rare flower. My patience and perseverance were finally rewarded in the Chilok valley at Ssochodno station, near the base of the Jablonoi ridge. Here is an immense open plain, evidently the bed of a lost inland lake. The soil is very thin, not more than an inch or two in thickness, and beneath it a bed of gravel. The surface is covered by thin, very short grass, and among this grass was the edelweiss in countless numbers.

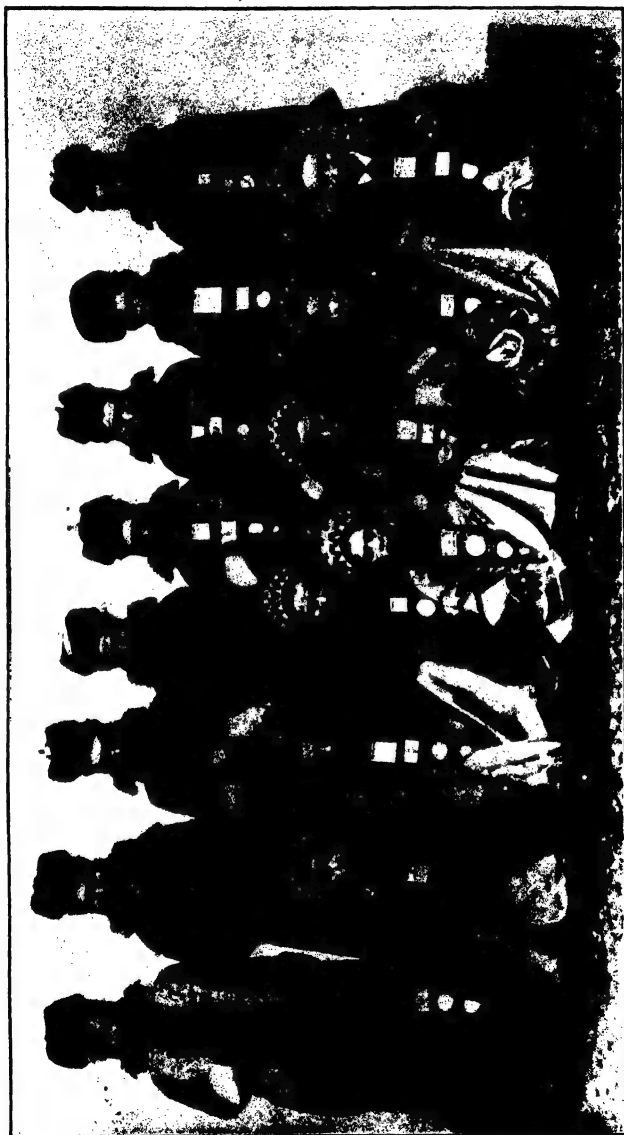
The stem, leaves, and flowers are identical with the alpine edelweiss, so highly prized by every traveler who visits Switzerland. How this alpine flower came here and selected this bleak mountain plain for its home no one knows. Its new home here is at an elevation of 3,500 feet, while in Switzerland it refuses to live at such a low altitude. It, however, appears to have found the soil it loves and in which it prospers, as is shown by the profusion with which it grows here. In many places it seemed to be a troublesome competitor to the sturdy grass of the plain, crowding it out of the way. It lives here so openly and without any attempt to make itself inaccessible that when the fact of its existence once becomes generally known the Transsiberian travelers will rob the plains of this gem, as has been the case with its alpine sisters in Switzer-

land, where it is threatened with extinction if the robbery continues at the same rate in the future as it has been carried on in the past.

The edelweiss here and in the Swiss Alps is characterized by its modesty. It wears a gray, downy dress, and its disks of composite flowers are obscured by a heavy whorl of terminal velvety leaves. Its modesty and fragrance are its leading virtues, and impart to it the charms which have established its world-wide fame.

Dear little Siberian edelweiss, can you trace your ancestry to the sturdy family that inhabits the crown of the Alps in Switzerland? If so, when and how did you find your way across the Urals to distant Siberia? Did you come on eagles' wings, or were you swept away from your alpine home and carried to this foreign land by some terrible cyclone? As a matter of safety, it is well you came here, away from the well-beaten pathways of travel. You have been secure in the past; your future is less certain, as the great Transsiberian railroad has found your new home and will bring here thousands annually intent on your destruction. As a matter of self protection, leave this narrow belt of civilization, created by the iron horse, and move northward, where you will be safe among the barbaric tribes, who do not know your charms and who can never appreciate your importance in the kingdom of flowers.

The Ingoda valley widens gradually into an open plain, with low hills and the mountain ridges on each side at a distance. The soil of the plain is very poor, and here the edelweiss is even more abundant than on the opposite side of the Jablonoi ridge. From Ingoda station the mountain ridges become lower and lower, and are almost lost in the distance before Tschita is reached. These open plains are as even and as smooth as a floor, covered by a carpet of very short, thick grass,



TYPES OF BURIAT WOMEN.

ornamented by the prettiest flowers. What an ideal place for golf players, baseball, horse races, drilling and maneuvering of troops! At Ingoda station two hunters, with good bags of birds and two tired-looking pointers, boarded the train. This sight, like many similar ones before, made my right index finger tingle and restless. We arrived at Tschita at eight o'clock in the evening. The station restaurant can be well recommended. Tschita is the capital of the Transbaikal Province, has 11,500 inhabitants, and is situated on the left bank of the river of the same name. At the close of the St. Petersburg revolution, in 1825, many political prisoners were deported to this place. Tschita has large carshops and a museum of the Imperial Russian Geographical Society.

Before the road enters Tschita it passes along the shore of a narrow, pretty lake at least six miles in length. The claim has been repeatedly made that consumption is unknown in Tschita and its vicinity. A similar assertion has been made for a number of other places in Siberia. I have taken the necessary pains to make inquiries from reliable sources, which reveal the fact that tuberculosis more or less is found everywhere, and that the Buriats are particularly predisposed to this fatal disease.

Sunday morning, July 11th, we arrived at Kaidalowo station, on the left bank of the Ingoda. This station is a very important one, as from here branches off the Manchurian road to Port Arthur. Soon after our arrival a train of six passenger cars crossed the iron bridge over the Ingoda on its way to China. Kaidalowo has an elevation of 2,500 feet, and the thermometer in the early morning registered 72° Fahrenheit. There is no farming in this part of the Ingoda valley. Much of the fine pasture land is fenced in and large herds of

cattle and horses may be seen at varying distances. As the grass is very short, it was a puzzle for me to understand from whence the hay is obtained for the long winter feeding. A veterinary surgeon who traveled with us explained to me later that the snowfall in this part of Siberia is light and that the cattle and horses find ample feed during the long winter.

Between Kaidalowo and Urulga the edelweiss grows in such profusion that it disputes space with the grass. Over this stretch of country the valley is bounded on the right by a lightly timbered ridge, on the left by bare bluffs. At Urulga the road crosses a small river, the Tologa. A short distance from the station the valley contracts into a narrow, wild gorge, leaving space only for the river; the road-bed had to be cut out of the solid granite rocks at the base of the bluffs. East Siberia is truly the land of flowers. Every day I see new species and varieties in gayest colors. The floral wealth of this region is simply amazing, and would afford a paradise for botanists. I know of no better place for a sportsman or a naturalist to spend his summer vacation than here.

During the forenoon, at one of the little stations, an incident occurred which gives some insight into the sense of honor of the Siberians. The moment the train came to a standstill a corpulent woman, breathless and very plainly dressed, rushed out of one of the third-class coaches and approached the station gendarme, and in loud language, accompanied by violent gesticulations and with tears streaming down the flushed cheeks, asked for his intervention. The policeman went to the coupe, so suddenly left by the woman, and brought out a short, stubby young man wearing a brand new pair of shining top boots, by far the best part of his apparel. Two trainmen followed with his



BURIAT WARRIOR OF THE SEVENTEENTH CENTURY.

luggage. A curious crowd soon collected on the platform of the station around the policeman, the woman, and the man brought there against his inclinations. The policeman, with blank book and pencil in his hands, jotted down the names of a few witnesses and their account of the affair. The man was taken into the station house, from which language issued that could be heard far away. The woman returned to her compartment smiling, and it was plain that she had received satisfaction. After a long parley the culprit came out of the station house with the policeman and the two trainmen carrying his luggage. He entered the same coupe, attended by the officers, remained a few minutes and then again appeared on the platform with his face lighted up by smiles, and entered another car. The conductor blew the whistle, the engine responded, and the train moved on. On inquiry we learned that the man so summarily dealt with had used offensive language, which was repeated after the woman had entered her protest. This was the cause of the complaint, and the brief trial resulted in a verdict to the effect that the offender should make the necessary apology to the woman whose feelings he had injured; which he did, and which was accepted as satisfactory by the woman. As the man was evidently under the influence of vodka, the officers deemed it proper that he should be at a safe distance from the woman he had offended, during the rest of his journey, and consequently secured a seat for him in another car of the same class and with other passengers, a part of the verdict which the prisoner of a few minutes was only too anxious to satisfy.

At Onon station, a very small village, the Schilka River is formed by the junction of the Ingoda with the Onon. The landscape remains about the same, wooded

ridges on the right side of the valley and bare hills on the left, with solid granite rocks for their foundation.

The restaurant at Schilka is a good one. Below the station the valley widens, the hills become lower and the soil much better. The hillsides on the right side of the river are cultivated nearly to the top, yellow fields of ripe grain alternating with the deep green of the forest. In the valley and on the left side of the river is excellent pasturage. The Nirtscha is crossed by a bridge 960 feet long. Nertschnisk, in this fertile valley, is the seat of government of East Transbaikal and has 6,700 inhabitants and a small museum.

Bjankina is a restaurant station, and below it the road crosses the Kujenga. Our railroad travel was suddenly interrupted when we arrived at Bajan, Monday morning, August 12th. A recent washout below this station interrupted railway travel for a number of days. It was fortunate for us that a steamer was in readiness to sail at once for Khabarowsk. We took advantage of this opportunity, and after having secured with some difficulty first-class accommodations, we left Bajan at nine o'clock in the forenoon of Tuesday. Our railroad journey from Irkutsk to Bajan was a very slow one, as in ninety-two hours we only made $342\frac{2}{3}$ miles, on an average only a little more than ten miles an hour. For this loss of time we were, however, amply compensated by what we saw and learned. The magnificent scenery, the charming flowers, the quaint people, kept our eyes and brains busy every moment we were awake, making the trip one of constant delight. Although the last day the thermometer at noon registered 78° Fahrenheit in the shade and 99° Fahrenheit in the sun, we did not suffer from heat, as the nights were delightfully cool.



TRANSBAIKAL MUSICIANS

CHAPTER IX.

THE STEAMER "URAL"—RUSSIAN PRISONS AND PRISONERS—
THE SCHILKA RIVER—SERJETENSK COSTUME—COSSACKS—
THE VALLEY OF THE SCHILKA—POSTAL ARRANGEMENTS
—OFFICIAL DIGNITY—THE MILITARY ROAD—A CROWDED
STEAMER—VEGETABLES—THE UBIQUITOUS SPARROW—EDU-
CATION—ALBAZIN—A BURNING MOUNTAIN—BLAGOVES-
CHENSK—SSACHALIN—THE AMUR—RADDE—THE "URAL"—
THE FLY.

*A fair complexion is unbecoming a sailor; he
ought to be swarthy from the waters of the sea and
the rays of the sun.—Ovidius.*

AFTER traveling somewhere in the neighborhood of 7,000 miles from Bremen to Bajan, in Siberia, by rail, with few interruptions of from one to four days' duration at the most important cities, it was a source of pleasure to exchange the railway car for a river steamer. This change was made at Bajan, Monday morning, August 12th.

Nearly four weeks on a railway car day and night is a somewhat trying ordeal to the strongest nerves; the short stops, the sightseeing, the packing and unpacking, only add to the unrest, aggravated by the sharp voice of the engine, the rattle and clatter of the train.

It was therefore with a sense of coming relief that we boarded the steamer "Ural." The "Ural" is a regular river boat, such as are used on the Schilka and Amur. It is a stern-wheeler, of doubtful age, but has recently undergone repairs that bring it up to the standard of the average river steamers. As the steamer had to take the place of the railroad between Bajan

and Serjetensk, nearly all of the passengers came on board. The first-class cabins, only few in number, were soon engaged by those who were able to make their arrangements with the chief steward in his native language. We finally secured accommodations by one of the officers vacating his room for a substantial money consideration.

We made the change just at the right time, as about noon a heavy rain set in which continued during the whole afternoon and far into the night. A shelf-like bed and a bare mattress stared us in the face as soon as we entered the cabin, and as nothing else was available, we made use of our limited bed outfit for the night. The motto selected for this chapter has a special significance. Ovidius had no faith in young, inexperienced, fair sailors who had but a limited acquaintance with the sun and the waters of the sea. Traveling by rail, we seldom think of the man on the engine who holds our lives in his hands. We are on land and consequently the sense of danger does not manifest itself. It is entirely different when only a plank stands between us and a watery grave. It is on board ship that we recognize and fully comprehend our helplessness in case of accident. It is the captain, the pilot, and the sailors we look to for safety. On boarding an ocean steamer, who is not anxious to catch a glimpse of the captain and see what kind of commander he is? We naturally give him more than a casual glance, and the first impression made at once infuses either confidence or mistrust. The man who rules Czar-like over the population of the floating island must be a man of skill, deliberation, good judgment, and wide experience. His sun-burned face, keen eyes, and deliberate manners create confidence. The crew of our ship more than answered the requirements made by Ovidius



SACRIFICE OF THE BURIATS, BLESSING THE FIELDS IN THE SPRING.

for a good sailor. Not one of the motley crew could boast of a fair complexion; they were all dark-colored, either by inheritance or long service on the water. Burly sun-burned Russians, Buriats, and Chinese made a picture that would have pleased the eyes of the timid traveler, Ovidius.

The largest prison at the present time is at Ssamara. The large prison at Irkutsk is well shown in the accompanying illustrations. One of these pictures represents an interesting scene, the deportation of a large group of prisoners. The prisoners are about to leave the penal institution and form a colony somewhere in the great penal land. A priest is holding service in the prison yard prior to the departure. This occasion is an important era in the lives of the prisoners, as from now on they will have to depend on their own resources, create homes, and under certain restrictions enjoy liberty, so long withheld as a punishment for infraction of the laws of their native country. At Bajan two prison cars, filled with unfortunate men under a strong military escort, were detached from our train and the human freight was transferred to a barge bound for the penal island, Ssachalin.

At Serjetensk we visited the city prison, containing a number of prisoners held in confinement for minor offenses against the law. The number of policemen on the streets, at the police station and in the prison and prison yard does not speak well for the morality of this city. As we were inspecting the primitive prison an immense crowd of policemen in handsome uniforms, yellow shoulder straps and belt, gathered around us and regarded us with as much curiosity as we did them and the prisoners. The same evening we witnessed a scene characteristic of Siberian prison life. About sundown we had an opportunity to see the deportation

to Ssachalin Island of about 200 prisoners who had been committed for grave crimes. All of the prisoners wore brown caps, coat and trousers of the same cloth, and top boots. They were all shackled, and the clinking of the many chains could be distinctly heard on board our ship from whence the procession was observed. Soldiers with fixed bayonets were marching in front, on the sides, and behind the double file of condemned men. As it had rained hard all the afternoon and was drizzling still, the mud was ankle deep and the march was slow, and many of the prisoners showed signs of fatigue. The saddest part of the sad procession, however, followed the prisoners' column. A long train of springless carts carried the prisoners who could no longer walk, the baggage, and lastly quite a number of devoted wives with children who had the courage and necessary womanly love to share with their guilty husbands the penalty for their crimes.

As the prisoners numbered over 200 and there were not more than twenty women in the rear of the procession, it was evident that only a few of the prisoners' wives had the courage and devotion to follow their husbands to their destination, the island of Ssachalin. Much has been said concerning the cruelty of the Russian government toward its criminals. We have much to learn from Russia regarding the proper punishment of criminals and in restraining vice. In our country the prisoners are confined in large, often palatial institutions, where they are well dressed and well fed and their time is pleasantly occupied by trade work. The real punishment inflicted is seldom commensurate with the enormity of the crime committed. To some of our fashionable, smart criminals, degradation by working in chains in sight of the public would sting more than confinement out of sight of the public



SCHAMANE PRIESTS OF THE BURIATS.

eye, and would have a more potent effect on the youth of our land in restraining crime. The well-behaved criminals in Siberia are soon given an opportunity to establish homes and create an independent existence, a great inducement and encouragement to better their moral condition. Many of the criminals are now successful and happy farmers and herdsmen. Such penal colonies in Alaska and other isolated parts of our country are needed, and under strict police or military supervision would accomplish more real good to our criminal classes than prolonged confinement in our state prisons.

We found the Schilka at its best, the recent heavy rainfall having raised its water sufficiently to do away with all difficulties to river navigation. At this point, Bajan, it is about seventy-five yards in width. It has a stony or mud bottom, and the current at the existing water-level is at least eight miles an hour. The water is very turbid, a condition probably due to the recent heavy rainfall. The valley through which it flows is narrow and closed in on both sides by a series of low ridges. We arrived at Serjetensk in time for dinner at the Hotel Mikirlitsch, a large log house with a very respectable cuisine. We were informed that the steamer would remain here for a whole day.

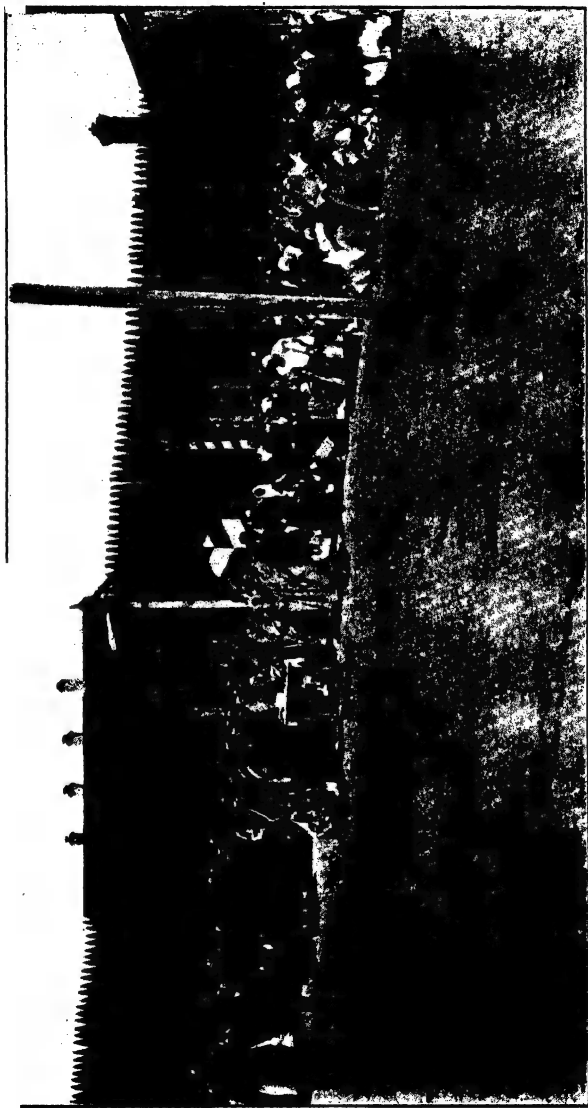
Serjetensk is situated on the left bank of the Schilka and has 8,000 inhabitants, mostly Cossacks and Chinese. All of the houses, new and old, are made of unhewn logs; they differ only in age and size. The streets are not paved and the few narrow sidewalks consist of boards with no support but the ground. The streets are very irregularly laid out and reek with filth. It is by far the dirtiest town in Siberia. During the dry season the air is filled with dust, almost to suffocation. Although this is the eastern terminus of the

Transbaikal division of the Transsiberian road and a river port of considerable importance, very little business enterprise is shown. The few street lamps are lighted with coal oil. The Chinese are well liked and prosper in conducting small stores, truck gardens, and as day laborers. They are much more cheerful than their neighbors, the Cossacks. Some enterprising American with ample means to establish a department store would find here an excellent opening.

We found here for the first time some discomfort from the aggressive house-fly, and in the evening at sunset after the rain the air was swarming with sand-flies. This pale, velvety, innocent insect made its appearance near the surface of the water, gradually ascending higher and higher until the air had the appearance of a snow-storm in midwinter, with the living flakes driven in all directions as though they had lost control over their wings and were thrown about by a whirlwind. The few mosquitoes were well behaved, preferring to satisfy their thirst for blood by fastening themselves on the dusky skin of the even-tempered natives rather than take the risk of attacking the nervous Americans in search of rest and recreation.

The steamer left its mooring Tuesday morning at nine o'clock, swept down the river for a few miles with railway speed, and again cast anchor at the military station on the left bank of the river, where nearly the entire afternoon was spent in taking on board hundreds of bales of tanned sheepskins. The freight was handled entirely by Chinese, who were given an ample opportunity to demonstrate the strength of their muscles and their skill in carrying loads under which the average American would break down. All this hard work was done willingly amidst laughter and jests.

Fashion does not disturb the mind of the native



PRISON YARD IN IRKUTSK PRISON—A LARGE GROUP OF PRISONERS READY FOR DEPORTATION—
SERVICES BY PRIEST.

Russian and Siberian of the laboring classes. The present male attire is undoubtedly one that dates back many, many years, and there is no prospect that it will undergo a material change for centuries to come.

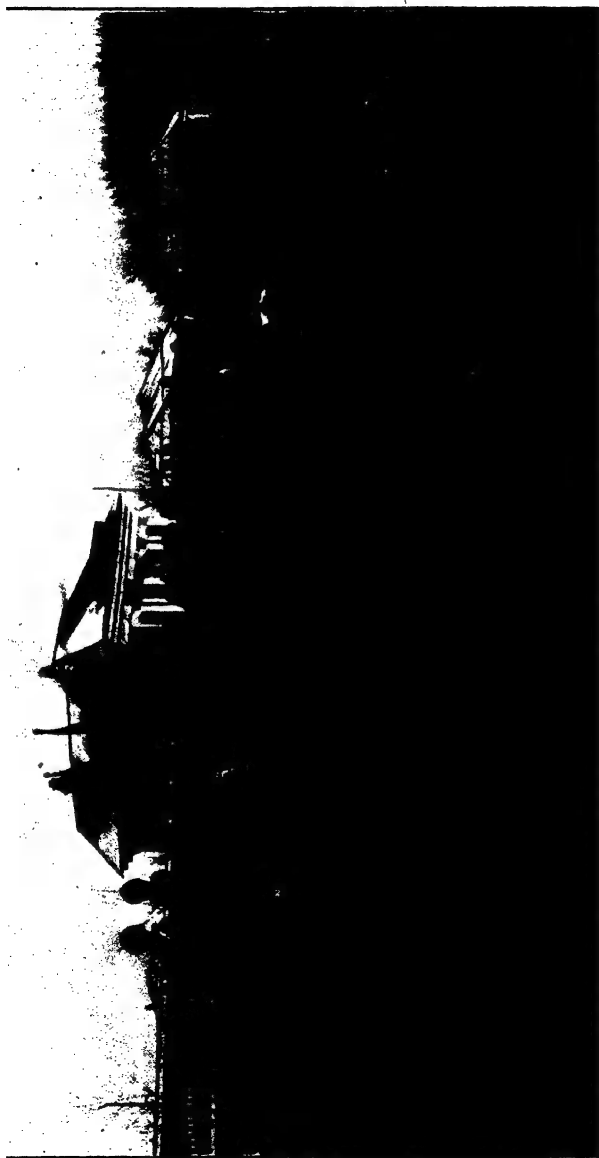
The distinctive features of the prevailing costume are the cap and the boots. The cap so universally worn by officers, soldiers, government officials, and peasants alike, is patterned after the German cap, differing only in the crown being somewhat larger. Everything depends on the color of the stripes and cockade in front in indicating the rank and social position of the wearer. The cockade of the government officials is round; that of the military, oval. The shoulder strap of the civilians runs across the shoulder; that of the military men, parallel with it. The trousers are loose like those of the Turks. The pride of the Russian, however, rests in his boots. Old and young, rich and poor, wear top boots. The Russian leather has a well-deserved reputation, and a pair of boots will do service for an indefinite period of time. A Russian peasant will sell his last cow rather than be without boots. The boots are expensive, but they must form a part of the Russian's attire. A pair of boots costs from twelve to twenty-five rubles, but as soon as a boy is old enough to wear them his father takes pride in buying the first pair for him, and when he reaches manhood the first money he earns goes to the boot-maker.

From personal experience I can testify to the many good qualities of the Russian boot. In 1897 I bought a pair in Moscow, used them on many a hunting trip, and they did excellent service in Cuba during the Spanish-American war. I lost my favorite boots in the service of my country. On my return from the yellow fever stricken camp to the hospital ship "Relief,"

I, like all others who came on board, had to undergo a thorough process of disinfection; the boots were not exempt. With the other clothing they were placed in the disinfector, and when they came out from this furnace their size was diminished more than one-half, and the leather had become as brittle as glass. I shall improve this opportunity to replace a loss which I have always felt very keenly.

It is not generally known what is really meant by the term Cossack. We only know the Cossack as an important integral part of the Russian army. Every one has read of the heroic deeds of the Cossack. We imagine that a Cossack is a bloodthirsty warrior of large size, riding a charger fretting for the fray. The Cossack does not differ in size from the other Russians, and the horse he rides is a large pony as gentle as a lamb. On careful inquiry I find that this word has a much wider significance. It applies to a distinct part of the Russian population living together in communities called "Stanitzas." They are a hardy people, fond of horses, soldiering, and warfare. The villages on the banks of the Schilka below Serjetensk are Cossack settlements. The Cossacks are also very numerous in the Amur Province. A large settlement occupies the best part of the Ural district. The Cossacks receive many special favors from the crown, and they are exceptionally loyal to the Czar, who on his part has an abiding faith in his Cossack troops.

The Cossacks receive the land from the government free, and each settlement has its own local government of a truly republican character. Every able-bodied Cossack, on the other hand, must serve in the army for four years, always in Cossack regiments. After he has completed his military term, he returns to his home and remains in the reserve as long as he



TROOPS OF MOUNTED COSSACKS.

can carry a gun. In this capacity he becomes a soldier for life. He is obliged to buy his uniform, weapons, horse, and equipments, and at fixed intervals does military service for a short time. In case of war he is subject to active duty at any time and must respond promptly when called out. This immense force is an important part of the actual war footing of the Russian army. The Cossack is a splendid horseman, and his military training is devoted largely to the cavalry service. A prominent Russian general, when asked as to the qualifications of the Cossack as a soldier, replied that he could be relied upon in a guerrilla warfare, but fell short in open field operations. The military color of the Schilka district Cossack is yellow, of the Ural Cossack violet, and of the Amur Cossack red. They are permitted to wear the military cap in civil life, and they seldom neglect doing so. The little Cossacks enjoy the same privilege from the time they are born, and it is common to see little boys wear the distinction of their fathers.

Our steamer did not leave Serjetensk until Wednesday morning, August 14th, the intervening time being occupied by taking in freight. The day before our departure we saw two prison barges, lashed together side by side, filled with convicts, and a freight barge loaded with provisions, towed by a large tug, going down the Schilka on the long journey to Ssachalin Island. In the middle of each barge was an enormous cage in which over a hundred prisoners were standing and walking and peering through the heavy iron grating. In front and behind this human cage were the cabins. Each barge was guarded by soldiers with fixed bayonets. The barges looked clean and were well ventilated, and from all appearances the prisoners were more comfortable than the third-class passengers.

on our steamer. The whipping post and other equally cruel punishments have been entirely done away with in the Siberian prisons, as I was informed from reliable sources.

That prison life is not as severe in Siberia as it has been represented to be is obvious from statements made by prisoners themselves. It is said that many prisoners after they have been released commit some minor offense as a means to avail themselves again of the comforts of prison life. A cab-driver in Irkutsk, who was confined for eight years in the prison of that city, spoke in the highest terms of the treatment he had received and pointed with pride to a three-story building owned by a man who had gone through a similar experience with him.

The valley of the Schilka below Serjetensk is very narrow, with bluffs, hills, and ridges on both sides. The scenery is very pleasing, panorama-like, and the landscape is beautified by the many sharp bends of the river. At each bend new sights meet the eye. The great regret I experienced while enjoying ever-changing landscapes was the distance of the flower-strewn banks, which made it impossible for me to distinguish and identify the flowers of the Schilka valley. The farms are small and occupy the sides and summits of the hills. The villages are wide apart and small, ranging from 150 to 800 inhabitants, only a few of them large enough to support a church. The hills are covered with light timber, birch, fir, poplar, and larch. The scenery is most picturesque from the ever-varying visions that present themselves every few minutes as the steamer glides down the rippling surface of the restless stream. To enjoy such a scenery to the fullest extent the eyes must be kept constantly busy, and the panorama-like landscapes will prevent them from becoming tired.



A RUSSIAN BATTERY.

The river itself and the green, mountain-like embankments create views that cannot be found anywhere else. Our majestic Mississippi has no such environments, and the proud palisades of the Hudson are but mole hills compared with the mountain ridges that bound the limits of the Schilka valley. The river contracts and dilates in obedience to the rocky embankments, often forcing its way through a narrow door, then expanding as the ridges recede, evidently with a sense of intense relief, bubbling and rippling with joy. At one time the ridges are higher on one side, then again the conditions are reversed. We now see on one side heavy timber, on the other a young, promising forest basking in the sunshine of the smiling Siberian sun; at the next bend of the river the landscape is reversed. Before the eye can fully take in the grandeur of high, proud, frowning rocky cliffs, it feasts on the green meadows of a wide valley, that comes nearer and nearer until we catch the sight of a small hamlet or a village large and rich enough to own a small church, that often appears more like a toy than a place of worship for big Cossacks and their large families. In Siberia, as everywhere else, the size of the families increases in proportion to the intensity of the struggle for life.

We have on board a dwarfed hunchback government official of low grade with hollow cheeks, straggling beard, long, claw-like fingers, and a chest that makes respiration itself a heavy task, who is accompanied by his young wife and eight bright-looking little children, who, if they should be arranged in a row according to age, would make a line drawn over their heads show hardly a perceptible incline. How such a large family can subsist on an insignificant salary is a riddle that few of our housewives would understand how to solve.

No matter how small a hamlet church may be, it must have a tower, a bell, and a cupola. Some of the cupolas in the Schilka valley do not exceed the size of a large Georgia watermelon, which they not only resemble in size and shape, but often also in color. The little churchyards, in the neighborhood of these small settlements also afford food for thought and reflection. The last resting-place of the Schilka Cossack is not marked by a marble or granite monument. If it is marked at all, it is by a small black wooden cross planted by his poor family in memory of the dead. In these little graveyards, grown up with weeds, sleep the early settlers of the valley which has communication with the outside world only five out of the twelve months. Many of these sleepers never saw the world outside of the valley in which they were born. They had little, if any, ambitions they did not realize. Their ideas of life and its duties were simple. They lived a life of peace if not of luxury. They undoubtedly enjoyed the river, valley, and mountains, and now they rest from their labors beneath the cross in which they placed their simple childlike faith. Of them we can say:

Oh, the safety of a poor man's life and his humble home! Oh, these are gifts bestowed by heaven, though seldom understood! What temples or what cities would not feel alarm, with dreadful forebodings, if Cæsar knocked at their doors with his armed hosts!—Lucanus.

As we are gliding down the beautiful Schilka, surrounded by the most wonderful works of the Creator, half dreaming, half awake, our minds free from care and absorbed by what is before us and what we have left behind, we are almost forgetting that we have reached a point on our long journey directly opposite Chicago,

the antipodes. The antipodes to Chicago is somewhere near Serjetensk which we left yesterday morning.

We have been traveling in a line against the sun since we left Chicago, and if we reach San Francisco and Chicago in pursuing the same course, as we undoubtedly will, every member of the party will be convinced that the world is round. The postmasters in the Schilka valley can send, if they were permitted to do so, our letters either way, and they would reach Chicago about the same time. This privilege, however, is denied to the mail officials. All Russian mail, as far east as Vladivostok, is sent by the way of St. Petersburg. On what ground this order has been issued I do not know, unless it is to deprive the Japanese steamers from carrying Russian mail to the United States. As far as we are concerned, if we want to reach home in the shortest possible time there is no return by the way we came, as we can reach Chicago in less time by going forward than by retracing the steps we have made. It is an inspiring thought when we reflect, as I am writing these lines at high noon, with the sun shining brightly overhead, that Chicago is wrapped in darkness, its streets deserted, our families and friends asleep. To-night at midnight our steamer and its heavy cargo of humanity will rest upon the bosom of the Schilka in front of some quiet little Cossack hamlet amid the solitude of the silent mountains, while the streets of Chicago will be thronged by busy, rushing crowds intent to accomplish what they have undertaken for the day in the shortest possible space of time. Here, rest; there, the greatest unrest.

The beautiful Schilka valley, the silvery bosom of the river that enlivens it, the magnificent green-clad mountains that fence it in, furnish all desirable condi-

tions for a delightful mental rest, such rest as the average overworked, nervous Chicagoan is in need of every year. Come here, all youth who can, during the month of August, and if a real rest with most inspiring surroundings can clear your minds, soothe your irritable nerves, and give you courage for the future, you will find what you seek. The villages and hamlets in the Schilka valley differ from each other only in their size. They are strung out over the bank of the river, usually with a single street parallel with the river. The houses are small and built of round logs. The little stores contain only what the few settlers are in need of, and in most instances the whole stock would not net \$100 on forced sale. Around each of the villages is enough arable ground to raise potatoes and vegetables and afford pasturage for a few horses and cows.

On Wednesday we made a short stop at Gorbiza, a typical Cossack village. The Chinese part of the population of this village has been very much reduced since the Chinese war, and those that remain intend to leave sooner or later for a more promising location. At present it has 500 inhabitants.

On Thursday, August 15th, shortly after noon, we arrived at Prokrowskaja, just below the junction of the Schilka with the Argim. The junction of these two rivers forms the great Amur, which is of less geographical than political importance at the present time. The Schilka is in reality a continuation of the Amur, and apparently little is added to its size by its union with its sister stream. The Amur has just now an important political distinction, as it constitutes the dividing line between the two greatest countries in the world—Russia and China. It was here we first caught a glimpse of China, and we will follow its river border until we reach Khabarowsk. This little village, con-

taining as it does only 375 inhabitants, presents a most forlorn appearance, as it contains only three small stores, but can boast of two churches. It was in this dirty little town that one of our party was reminded in a most forcible way that he was still on imperial soil. We visited the postoffice, a rickety little log house with broken doors, and entered the sanctum of the representative of the Czar for the purpose of purchasing a few postal cards. The most dignified member of the party failed to remove his cap on entering the room. The postmaster, in full uniform and silver shoulder straps hand wide, refused to do business until he saw the bald head of the one upon whom his eyes were fixed from the moment he came in sight. The little business transaction was then disposed of, the bald spot disappeared under the American cap, and our friend turned his back to the handler of letters more fully impressed with the refined customs of wild Siberia.

The stranger who visits this spot for the first time can hardly imagine that he stands on one of the most important political landmarks—Russia on one side, China on the other. This part of Russia new, China older than Rome; Russia strong, China yielding; Russia aggressive, China made passive by recent disasters; Russia progressive, China still wrapped in the mantle of obstinate conservatism. In the Schilka valley and the upper Amur region a strong reminder of the late Chinese war remains in the form of a military road. The necessity for troops came when the Schilka and upper Amur were not navigable. The road had to be built quickly, and the military engineers received instruction to complete it in two months. The instructions were carried out, and two months after the work was commenced the long procession

formed by 60,000 men, cannons, ammunition and provision wagons, ambulances, etc., passed over it. The high water of the rivers has submerged this interesting road at many points, but it is reasonable to expect that the large sum of money spent in its construction will not be entirely lost, as at no distant time it will prove useful in the extension of the Trans-siberian railroad from Serjetensk to Khabarowsk, a distance of 1,134 miles. Another evidence of the recent warfare is the ruins of Mocho, on the Chinese side. Before the war Mocho was one of the largest of the Chinese villages on the Amur. The Russians set it on fire, and massacred many of its defenseless inhabitants. Only few houses remain, and no attempt has been made to rebuild it. The large plain upon which the village was built is now desolate, and the fertile fields have been turned into meadows, now dotted by large haystacks. The mountains of the Great Khin-Gan on the Manchurian side are well timbered and higher than the mountains on the Russian side. When Manchuria becomes a part of the great Russian empire its inhabitants may find some comfort in chanting,

In a change of government, the poor seldom change anything except the name of their master.—Phædrus.

Although the water of the Amur was quite high, the "Ural" struck bottom, Thursday, shortly before midnight, and it required much noise and hard labor on the part of the officers and crew to set it afloat again, causing several hours of delay. Friday morning, August 16th, the steamer was anchored on the Russian side. This stop was made in response to a signal of distress. Forty days ago a large party of Cossack immigrants had to leave their vessel, which had run aground at this point. Twenty-three persons of



RUSSIAN MILITARY BAND.

the party remained here to guard the baggage, the remainder went on to their destination, to the Amur Province. Forty days was a long time to wait in the woods on the bank of the river for relief.

An immense amount of baggage and agricultural implements had to be taken on board, consuming nearly half a day. The twenty-three passengers only aggravated the crowding on the one deck of the ship. On the "Ural" the first, second and third-class passengers shared the same deck. Some of the first-class passengers slept in the dining-room, the second-class in the halls, and the third-class were distributed over the entire deck, filling at night every available space on the benches, and even floor room was scarce. At nine o'clock in the evening and thereafter it was difficult to make a step without endangering fingers and toes of the sleeping passengers or stumbling over the bodies hidden under blankets, shawls, and dilapidated fur-lined overcoats. If it had not been for the good-natured disposition of the passengers of all classes, serious difficulties might have arisen from the crowded condition of the ship. At the landing we were again reminded of the horrors of war. A large Greek cross with a lengthy inscription marked the place where a Russian soldier fell overboard and was drowned; near by was his recent grave. The river at this point is as wide as the Mississippi at St. Louis, and the current is very rapid. On the Chinese side a wide plain forms the footstool of the distant low Great Khin-Gan Mountains. On the Russian side, bottom land with trees, shrubs, and flowers, resembling the bottom lands of our rivers.

The most common vegetables in Siberia are cucumbers and potatoes. The cucumber is eaten by all classes throughout the entire year, fresh in the summer and pickled in the winter. The peasants

never think of peeling the juicy, tender product of the hardy vine. The Siberian cucumber is far more palatable and less likely to derange digestion than our own. The potato is cultivated everywhere and the tubers are of excellent quality. Cabbage, cauliflower, onions, beets, and carrots can be seen in any vegetable garden of any pretension. Oranges and lemons can be bought at any of the eating stations at the rate of twenty kopeks apiece. They come from Italy by the way of the Black Sea and the Volga. A small apple in Irkutsk commands the same price. The indigenous fruits are supplied by the forests. They are strawberries, dewberries, raspberries, and blueberries. The strawberries are very small, sweet, and aromatic, the raspberries are delicious, the blueberries rather sour, but excellent when eaten with sugar.

The sparrow needs no introduction to any nation or any habitable country; he is known the world over. He is known for his prodigious fecundity and his phenomenal aptitude to live and prosper in all climates. He is a shrewd immigrant, and in politics an open anarchist. He works not, he sows not; his whole time and all his energies are devoted to reaping. When his family grows beyond the food supply of a locality, and he is obliged to look for a new home, his whole energy concentrates in finding a locality where man is engaged in raising grain or its equivalent. Once located where the food supply is abundant, he stays and does all in his power to keep at a safe distance any of the feathered intruders that have a taste for the same kind of food he subsists on. The sparrow has a systematic, well organized government. Defensive war is his pastime. When invasion threatens, his tribe turns out in full force to defend what he claims as his own. What one sparrow cannot accomplish, dozens,

hundreds, and thousands can. When the leader sounds the alarm the response is prompt, and if occasion requires it, the fight is unto death. The anarchistic tendencies of the sparrow are the leading features of his selfish life, but he possesses one redeeming virtue that entitles him to some consideration, in that he is democratic in all that this qualifying term implies. He has no use for a summer vacation or a change of climate. He stays where he lives and shares the discomforts of climate with the human beings that supply him with food. This good quality is manifested by the Siberian sparrow in an eminent and laudable degree. Seven out of twelve months his food supply is buried underneath the snow, and it requires some effort on his part to find it. In appearance, behavior, and language the Siberian sparrow is the counterpart of our own. Climatic influences make no impression on his little body and selfish nature. Here in Siberia, as elsewhere, when he looks for a new home he has an eye on the grain fields. It is only in the grain-producing part of Siberia that this bird can be found. He cares nothing for the mountains, shrubs, trees, and flowers; he wants grain for his gizzard and grain he gets. For hundreds of miles through the great forests of Siberia not a single sparrow can be seen, and his reappearance on the telegraph wires is the surest indication that wheat fields are near by. This little confirmed thief is undoubtedly responsible for the absence of song birds, which in his absence could spend their summer vacation nowhere more pleasantly than in the land of endless forests.

There are few public schools in Siberia. The young man and young woman who seek an education must pay for it. The only university in this country is at Omsk and has at present only 400 students, including

students of medicine and law. In the larger cities private high-grade schools afford an opportunity to obtain a good practical education, but all of them have to rely on tuition for their existence. The Russian government did not deem it advisable when slavery was abolished to educate at its expense the liberated slaves. The result of this conservatism has been that labor, so essential in the development of a new country, has not been impaired and the professions have not become overcrowded, the counterpart of what has happened in our country since the civil war. There can be very little doubt that the Russian government at no distant time will make ample provision for an elementary education even in the remote Siberian villages, and this is as far as it is safe and advisable to go. The best possible preparation for a higher education is work. The best men and women in all professions with few exceptions are self-made men and women. Observation and history corroborate the correctness of this statement. We have gone to the other extreme in our country, with the result that labor has become stagnant and all of the professions crowded far beyond existing demands. These remarks apply with special force to the negroes of the south. Those who live among them have become satisfied by experience that education among them has proved a failure. Restrict free education to our excellent public schools, and a more healthy condition of public and professional affairs will be created.

Albazin, a Cossack village of 800 inhabitants, was founded by Khabarow in 1651 and was destroyed by the Chinese in 1689. It is now one of the important villages on the Russian side of the Amur. From here the mountains of the Great Khin-Gan recede, the river expands, and hardwood becomes more abundant. At



RUSSIAN ARTILLERY.

Permikinskij the river is 3,000 yards in width. These expansions of the river with their many wooded islands and surroundings present all the aspects of the placid lakes of northern Wisconsin and Michigan. The banks of the river are well lighted for the benefit of the pilots for night travel. On the right bank the lights are red, on the left white. The government is spending a large sum annually to render night travel safe. An army of lamplighters is employed during the entire river season, showing again the fatherly care of the Russian government for its distant citizens. The farther down the Amur we descended the more imposing became the lordly stream. The mountains, near or distant, the wall-like cliffs, the many bends of the river, the wide expanse of green pastures, all combine to impart to the scenery a picture of quiet, peaceful beauty that strengthens the eyes and soothes the tired, aching nerves.

At Beitonowskij, the Pongo River enters the Amur on the Chinese side. At Olginskij the river narrows to 600 yards with a decided increase in the swiftness of its current. On Saturday forenoon, August 17th, we came in sight of the burning mountain on the Russian side. The bare clay surface of the side of the hill is cleft at a number of points, from which issues curling blue smoke as from so many chimneys. This diminutive volcano has been in action for a long time, in fact, the captain of the ship remembered it since his boyhood. At times some of the little craters are at rest. The fuel of this subterranean stove consists of coal and coal oil. Above Kusnezowskij, a village of less than 200 inhabitants, there is a beautiful colonnade on the Chinese side, consisting of four pillow-like rocks. Below Jermakowski the Onon joins the Amur on the Russian side.

At Zagajan is the Lama Rock, which is regarded by the Mongolians as a holy place. Below Nowo-Wosskressens Koje, the river is nearly two miles in width; the left bank is a red sandstone cliff 300 feet in height.

At Stavo-Kumarskaja, on the left bank of the river, stands upon a high prominence a large iron cross which can be seen from a great distance. The mountains gradually recede, and at Blagovestchensk they disappear entirely on the Russian side while the Chinese range remains distinct, but at quite a distance, the foreground, upon which unfortunate Ssachalin was situated, being a large flat plain.

Blagovestchensk came in sight Sunday morning, August 18th, and at nine o'clock we stepped on shore. The city was in Sunday attire, and a mass of people had gathered to await the arrival of the steamer. This city with an unpronounceable name is the Chicago of Siberia. It is situated on a peninsula formed by the junction of the Amur with the Seja. The Seja is the largest tributary of the Amur, equal in width and velocity of current, but more shallow. Blagovestchensk is a new, modern city, with 38,000 inhabitants. Its streets are wide and regularly laid out, but without pavement. The sidewalks are made of planks. Two large department stores impart to the city a businesslike appearance. The profits must be enormous, as the prices of most articles are three times greater than in Irkutsk. A number of large brick blocks have recently been erected and others are in process of construction. The Grand Hotel is the best place for the traveler, as it has the best restaurant. Two dollars a day is the average price for a room. The dwelling houses are neat, one-story log buildings. Blue is the favorite color, as all the business signs and many houses display this color.



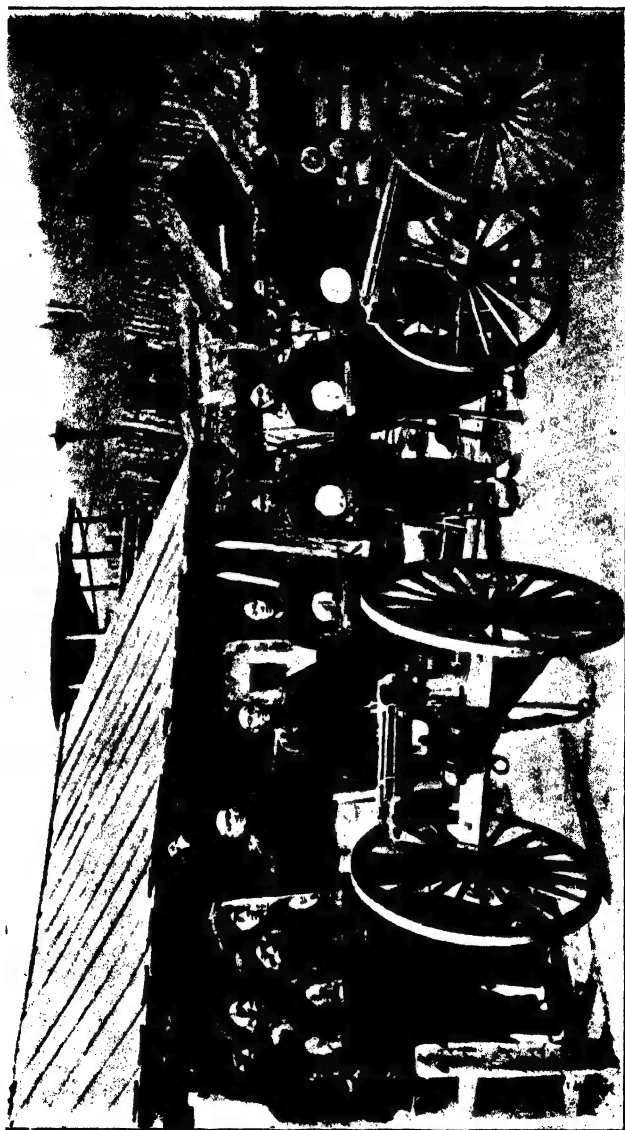
CHINESE GUNS CAPTURED BY THE RUSSIANS AT AIGUN.

Opposite this city are the ruins of Ssachalin, a large Chinese village destroyed by the Russians last year. This event is a black spot in the history of Russia. A small Chinese force was stationed here to protect the Chinese border. When the Russian troops arrived the soldiers went bathing in the river, which at that time was very shallow. The Chinese, believing they were about to cross the river and attack the village, opened fire, but did no damage, as they had no cannon. The Russians became enraged, gathered all the Chinese on the Russian side, including women and children, some 5,000 in number, and despite their pleadings for life on their knees, were driven into the river at the point of the bayonet, and more than half of them found their graves in the turbid waters of the river. The Russians then crossed the river, drove away the Chinese troops, and destroyed the large village by setting it on fire. Not a single house escaped, and no attempt has since been made to rebuild the village. The place has been held by the Russians since that time, and is now a strategic point under strict military rule.

We were anxious to cross the river and inspect the ruins, but were informed that no white person, foreign or native, was permitted to do so without permission from the commanding general of the Russian troops at this point, which could only be obtained a few days after application. Aigun, a still larger Chinese village, twenty-eight versts below Blagovestchensk, met a similar fate, only the little temple and a few houses escaped the ravages of the flames. There the Russians have gone still farther in fastening the grasp of the Russian bear upon fated Manchuria. Large barracks and storehouses have been erected and are occupied by Russian soldiers. No Chinese can be seen on the Man-

churian border and no Chinese junks plow the waters of the great Amur, and from these things I have drawn the conclusion that Russia is virtually in possession of Manchuria, as there are enough Cossacks on that side of the river at the present time to hold it against any force China might send.

We left Blagovestchensk Monday, August 19th, at 9 a. m. The long delay was caused by the chief veterinarian of Russia, who stopped off on official business. The steamer was held for a whole day with more than two hundred passengers on board to await the arrival of this insignificant government official, a strong reminder that we were still within the limits of the Russian Empire. What railroad or steamship line in the United States would hold a train or a ship carrying so many passengers, anxious to reach their destination, for such a length of time for any government official or even the president himself? After all, there is some satisfaction in living in a country where no such distinction is made. It may not be amiss to state that this doctor of cattle, horses, dogs, and fowl was in possession of the high-sounding title of "General." Some of the travelers have made the statement that the route from Blagovestchensk to Khabarowsk is devoid of attractions—monotonous. Such an impression only one could receive who is the subject of indigestion or who secretes himself within the narrow confines of his cabin. It is here that the majestic Amur appears to greatest advantage. It is here that it expands itself, at varying distances, into lakes with numerous green islands. It is here that the mountain ridge on the Manchurian side is continuous, coming now to the very verge of the great river, kissing its rippling waters, then receding again in the distance in the form of a blue line. It is here that on the left the eye fails



CHINESE BATTERY AT AIGUN, MANCHURIA.

to measure the endless low plain clothed with the greenest of grass. It is here that the Amur claims the right of way and gives expression to its ambition to become the largest river in the world by folding itself into numerous bends, disclosing at each of them a new world with new landscapes.

The eye that is not delighted with the varying scenery of this part of the Transsiberian journey is either tired or faulty in its construction. While I am writing my companions are on the deck feasting on the scenery, now on the left, then on the right side, drinking in ceaselessly the beauties of nature near and far as the steamer glides down ahead of the strong current of this mighty river. There is not a spot in Siberia devoid of interest, much less the lower Amur. A voyage on the Schilka and Amur from Serjetensk to Khabarowsk gives the traveler an opportunity to see the awe-inspiring fjords of Norway and Alaska, the inland lakes of Wisconsin and Michigan, the placid alpine lakes of Switzerland, the Thousand Islands in the St. Lawrence River, the palisades of the Hudson, and the rocky bluffs and low tablelands of the Mississippi.

Tuesday, August 20th, we again came in sight of mountainous ridges on the left side of the river, and before Paschkowski comes in view the river is lost between the foothills of the Great Khin-Gan Mountains, where its width does not exceed 600 yards, the rocky cliffs rising from the water. In this beautiful subalpine region is nestled on a high bank Radde, a village of considerable size, on the Russian side. On the opposite side are the ruins of a Chinese village destroyed by the Russians last year. Radde is named after a distinguished naturalist, and no more beautiful spot could have been found anywhere to commemorate

the name of one who made the study of nature his life vocation. All Radde needs to make it the pearl of the Khin-Gan Mountains in Russia is a life-size statue in marble or bronze of the man who devoted the better part of his life to the exploration of Siberia.

Wednesday morning, August 21st, we were out of sight of mountains; endless plains on both sides, the Amur, clear of mountain resistance, widening its bed at its own pleasure. Toward evening mountain ranges again came into view. The plains, as well as the mountain sides, are scantily wooded by hardwood timber. The Amur finds its way through these mountains through a wide gap below Michailowo-Ssemenow-skaja. This, a Cossack village, has 650 inhabitants, and at present is the headquarters of a regiment of Russian troops in camp on the bank of the Amur. It has one good store where almost anything the traveler is in need of can be purchased. A little above this village the Amur receives the waters of the Ssungara, a large tributary from the Russian side.

Thursday morning, August 22nd, the mountains had disappeared behind us and on both sides of the river immense flat plains extended from the lower clay banks of the river. The day before we saw the first Chinese junk, a primitive sort of a vessel driven by a single square sail and manned by two men and a boy. Before the Chinese war of last year the Amur was alive with Chinese crafts; to-day the traveler looks in vain for them. For this sudden departure of the Chinese merchant marine we found adequate cause in the presence of three Russian war barges in charge of marines which we saw cruising up and down the Amur. It appears to be distinctly understood that the Amur is now entirely in the hands of the Russians and that the Chinese do not dare to occupy the Manchurian shore. At noon the

Ussuri Mountains came in sight as an undulating blue line, and as the distance diminished the outlines became more and more distinct, rising to an elevation of 4,000 to 5,000 feet, looking down upon the Amur with a determination that meant defiance. When already in sight of Khabarowsk, perched upon the right bank of the Amur, one of those little accidents occurred which often try the patience of the traveler. At two o'clock a piece of timber became entangled in the wheel and made havoc with the spokes and paddles. There was no other alternative than to cast anchor and repair the damage. In two hours the work was done and we completed the last few versts of our Amur voyage. The Ussuri, a river 850 versts long, empties into the Amur at this point.

The capacity of the Amur is something enormous, as its largest tributaries do not seem to make any visible impression in increasing its size; it simply flows on in its customary way, its increase being gradual as it grows in length. At Khabarowsk the river is two miles in width. The left bank is low and marshy, the right a high bluff which extends to the foothills of the Ussuri Mountains. The Amur trip on a large, not overcrowded steamer, is one of the most enjoyable experiences of the traveler who enjoys and appreciates nature's wonderful handiwork. We were unfortunate in taking passage on an overcrowded tramp steamer, a condition which was aggravated as new passengers frequently came aboard while few left the ship until it reached its destination. I warn travelers to avoid the "Ural" if any other steamer is available. The management of this steamer has one principal object in view, and that is to make all the money that can be made. No distinction is made between the first and second-class passengers. The third-class occupy the

same deck and purchase their food from the same kitchen. The meals are very poor and expensive and the wash-room is filthy. Every evening, between eight and nine o'clock, the steamer was anchored in front of some woodpile in the solitary woods where the passengers had no chance to make any purchases, evidently for the purpose of making the kitchen and the bar more remunerative. The start was usually made at daybreak, but two mornings the fog detained us until six or seven o'clock. Once more, avoid the "Ural" if you can find any other ship. The mail steamers are comfortable, less crowded, and the accommodations and kitchen all that could be desired. Every passenger was anxious to leave the "Ural."

As we ascended the bluff on our way to the hotel we gave the Amur a last long glance and then bade good-bye to one of the world's greatest and mightiest rivers with a feeling of regret, richly tempered with a sense of profound gratitude.

The temperature at no time exceeded 78° Fahrenheit, and the nights were always delightfully cool. The ubiquitous common house-fly was the only insect that tested our stock of patience. The house-fly is an early riser and does business as long as the natural or artificial light will illuminate the fundus of its prodigious eyes. The fly takes it for granted that all living things should enjoy with it the early dawn of day. It does its share in setting animal life in motion. The Siberians need no alarm clock, and the traveler is relieved of the necessity of leaving a morning call if he wants to start with the first hour of the coming day, as the fly attends to such duties with a punctuality and persistence that command respect if not admiration. The house-fly has no evil intentions when it plunges upon the placid face of the sleeper with the fierceness of a pellet fired from a

popgun, and if this first attack is not successful in restoring consciousness, the rapid morning walk with the aid of six legs over the smooth, oily surface will eventually arouse the sleeping energies to activity. Chase it away by a fitful wave of the hand and it will choose a good strategic point from whence to renew the effort as soon as it can satisfy itself that the slumberer's condition is such as to render it safe and promising for gaining its point. The fly is persistent and will not rest until the sleeper is tired by the half unconscious fight, rubs his eyes, and compromises with his enemy by abandoning all hope of prolonging his sleep.

The house-fly has a special grudge against the after-dinner sleeper, as it does not believe in changing day into night. Occasionally one of these sleep disturbers loses its life in its questionable practice of preventing an after-dinner nap, but such accidents are few, and when they do occur a relay of volunteers is in anxious readiness to take the place of the dead. The house-fly of the Amur is a hard worker, and the traveler will do well if he is in need of after-dinner naps to take them far ahead, before he passes over this part of the Trans-siberian route.

CHAPTER X.

DISAPPOINTED SETTLERS—KHABAROWSK—PLEASANT TRAVEL-
ING COMPANIONS—ON THE ROAD TO VLADIVOSTOK—THE
GIBRALTAR OF SIBERIA—THE GOLDEN HORN—HOSPITALS
AND PATIENTS—CHINESE LABORERS—MR. GREENER—THE
MARKET PLACE—FARMING.

*For brave men ought not to be cast down by adver-
sity.—Italicus.*

THE settlement of any new country means hardship and privation. The pioneers must be brave men and brave women. Soil and climate do their good share in making such an enterprise either a success or a failure. A poor soil is a stubborn antagonist to deal with from the beginning, and a rich soil with a vicious climate often frustrates the efforts of the most heroic men. Siberia is a country in which the patience and energies of the first settlers are severely tested. Success here requires frugality and hard work. Nature does her very best during four or five months to reward the diligence of the farmer, but the hard, long winters tax the resources for food, clothing, and fuel to their utmost. On our way from Khabarowsk to Vladivostok, we found at one of the railway stations a large group of men, women, and children, with teams and household goods, who had left a new settlement disheartened and were on the way to a new and, as they expected, a better location. The sight was a sad one, indeed. The impress of hardship and discouragement was stamped upon every face; even the children looked sad. Their cheeks were hollow and their clothing had become rags. The few agricultural implements testified to

their recent hard usage. The brave men were cast down by adversity, but had enough courage left to seek their fortune in another part of the same country. What we saw here was only a repetition of what we witnessed repeatedly on our journey through Siberia—families and colonies in fourth-class cars returning to their old homes in European Russia. The country between Khabarowsk and Vladivostok opened by the Ussuri railroad is being rapidly populated by immigrants, most of them from European Russia. The soil is excellent, the water and timber supply all that could be desired, but, like the settlers in all other parts of Siberia in the same latitude, these pioneers will have to face the same enemy—the long, severe winter. If these brave men have the necessary patience and perseverance they will eventually find here comfortable homes and all that is necessary to make life happy, for,

It is not the rich man that thou shouldst rightly call happy, but he who knows how to use with wisdom the gifts of the gods, and to bear the annoyances of poverty with patience, fearing a deed of shame worse than death; such a man is always ready to die for his friends or fatherland.—Horatius.

The city of Khabarowsk was founded in 1858, by Earl Murajew, and named after the Cossack hetman, Khabarow. It is situated on a high bluff on the right side of the Amur, where it is joined by the Ussuri, an important tributary from the south. It has 1,500 inhabitants, one-fourth of them Chinese, and is the seat of the Pri-Amur general government.

From the Amur the city presents an imposing appearance. Near the palace of the governor is the museum of the Imperial Russian Geographical Society. In the city park, overlooking the Amur, is a bronze statue, thirty feet in height, of Earl Murajew Amurski,

who died in 1881. A quarter of a mile from the railway station is the Technical School for Railway Employees. The city has three principal hotels—the Khabarowsk, a fine modern brick building; the *Russie* and *London* are large, comfortable log houses. The proprietor of the *Russie* is a Polander who speaks German fluently. This hotel can be recommended to the traveler who seeks comfort and a good table at reasonable prices. Several large brick buildings are occupied by stores. The dwelling houses are small but neat log houses. Khabarowsk is a very important military station. The barracks, permanent buildings, can accommodate a number of regiments. At present the troops are encamped on the bank of the Ussuri, near the city. The city is scattered over a large surface; its streets are wide, regularly laid out, but not paved, and only dimly lighted by oil lamps. The city has an important commercial location, and with enterprising business men at the head will double its population in less than ten years.

Among the pleasantest and most interesting passengers we met on board the "Ural" were the Count and Countess of Rogendorf. The Count is a Hungarian, a university bred man, with a military experience of twelve years in the Austrian army. The Countess is a typical English lady, with a speaking knowledge of five or six languages. Their permanent home is in Algiers. They are great travelers and are now on a trip around the world, including a trip to distant Australia, where they expect to join the parents of the Countess, when they will return to Algiers by way of the United States. The Count is an enthusiastic botanist, and spends his time when at home in taking care of a large flower garden. We will be in the company of these modest, titled people until we reach

Nagasaki, where we will part with them with the most pleasant memories of the genial association with them during the most interesting part of our journey. We left Khabarowsk Friday, August 23d, at 8:50 a. m.

The Ussuri division of the Transsiberian road, which connects Khabarowsk with Vladivostok, is $240\frac{1}{2}$ miles in length. At present it is in every sense of the word a military road. It makes almost a bee-line from one point to the other, through a great valley and over high tablelands, and runs parallel with the Ussuri on the right side as far as Spasskaja, but the river never comes in sight. This part of the country is very sparsely settled. The railroad stations are models of architecture and convenience. Around each station new villages have sprung up, which in the near future will become the centers of large settlements. This road has only one regular passenger train each way daily.

The train consists of five passenger cars, a dining and baggage car. The dining car is a great convenience, as the station restaurants are very poor. A fair table d'hôte dinner is served at one ruble, from twelve to three o'clock every day. Meals a la carte are quite expensive. Smoking and wearing of hats or caps are strictly prohibited. This is for the benefit of those who are not conversant with the reading of Russian signs hung in conspicuous places, and who have been in the habit of doing such things in the railway stations. Nearly all of the first and second-class compartments were occupied by officers. The Russian officer is always a gentleman, invariably courteous and obliging to strangers.

The valley through which the road passes is an interesting one. The mountains on either side are always in sight, the foothills at varying distances from

each other frequently encroaching upon the line of the road, which made it necessary at different points to do some heavy grading; on the whole, however, the difficulties encountered in making a good and substantial roadbed were but few. Timber for ties and telegraph poles, stone, gravel, and sand are present in abundance all along the line. For the first seventy-five miles the country is low, thinly timbered with hardwood, and many open places with an abundance of grass.

The principal trees found in this region are birch, poplar, white and black oak, elm, walnut, black ash, and soft maple. The traveler will enjoy the numerous birch and poplar parks, which make a better appearance than anything of the same kind made by the landscape gardener. These natural parks lend an indescribable charm to the varied sceneries of the Schilka, Amur, and Ussuri valleys. The road gradually ascends, and after it has reached the high tablelands the traveler is in the presence of landscapes it would be difficult to duplicate in any other country. Great blossoming meadows and the most magnificent natural parks alternate with each other. The meadows are veritable flower beds; the green, juicy, delicate grass is almost obscured by flowers representing all the colors of the rainbow. How fortunate that these virgin meadows have escaped the ravages of the scythe and the rapacity of live stock!

The scythe, plow, and scissor-like teeth of the herds are the funeral bells of the wild flowers. Where is the artificial flower garden that can compare in beauty with the virgin flowers of the Ussuri valley? What a pity it would be to cut the grass that shelters the germs of the flower world and convert it into hay. The stupid cow and the unappreciative Siberian pony

are not worthy of such a delicacy. I venture to say that hay reaped from these lovely subalpine flowery meadows deserves a better fate, and that an infusion made of such aromatic, fragrant hay would compare favorably with the Russian tea served at restaurants, and even the best Siberian hotels, at the rate of from five to twenty kopeks a glass. The fragrance of the new-mown hay is something marvelous, and would discount any and all of the manufactured perfumeries.

Schmakowka is a small village noted for the Sswjato-Troitzkij monastery, founded in 1895. Between here and Spasskaja, a village of 1,000 inhabitants, cultivated fields become larger and more numerous, and little hamlets dot the valley and sides of the green foothills.

At Tschernigowka, a village of 1,300 inhabitants, the road crosses the Lefu River and then descends into the valley of the Suifun. In this locality farming has been a great success; the grain fields are large and numerous and have yielded this year a crop that would compare favorably with the richest wheat fields in Wisconsin and Minnesota. Nikolski-Ussirijskij, not quite a mile from Nikolskoje station, is a city of 15,000 inhabitants in one of the most productive and best cultivated parts of Siberia. A branch road extends from here to Port Arthur. All of the houses are made of logs, are whitewashed, and with the tin roofs under the bright Siberian sun the city looks like a fairy town, and the waving, golden wheat fields, the mountains in the distance, and the river with many curves winding its way through the prairie-like valley, yield the picture of dreamland. A large number of Koreans in their picturesque dress gave a new aspect to the motley crowds seen at the railway stations from here on to Vladivostok. From here the road follows for a con-

siderable distance the Suifun River, a rapid stream of clear, pure water. The rocky banks rise from fifty to a hundred feet above the level of the water, affording a good view of the river beneath from the car windows. Large emerald-green patches of millet and blossoming pastures furnish a beautiful contrast with the golden grain fields, awaiting the coming of the expectant, happy reapers.

In this region the high-bush cranberry, with its crimson-red juicy fruit, is very abundant, and the lily of the valley (*convallaria majalis*), the boneset (*eupatorium purpureum*), and the Japanese wild grape grow in profusion. The road ascends by a steep grade a high mountain plain with a subalpine flora, when it descends by a gradual grade until it reaches the sea-level of the Bay of Peter the Great, the shore of which it follows until it terminates at its destination, Vladivostok station.

Vladivostok is the Gibraltar of Siberia. It is the capital of the Pri-Amur Province, and is on the same parallel of north latitude as Chicago. The distance separating this city from the capital of Russia, St. Petersburg, is 6,614 $\frac{2}{3}$ miles. It has a more beautiful location than any of the European cities. It is said, "See Naples and die." The Russian can well say, "See Vladivostok and die," as the location of this city is far more beautiful than that of Naples. It is located on a peninsula on the shore of the Golden Horn, a sheet of salt water four miles in length and two-thirds of a mile wide, a part of the Japanese Sea, and is scattered for more than five miles along the water front and nestled among the high, green, mountain-like hills rising from the shores of the bay. It was founded in 1860, and from December 31, 1865, until 1890, enjoyed the privileges of a free port. In the year 1896, 253

ocean vessels entered its immense harbor. From the beginning of December until the end of March the bay is ice-bound, but navigation is kept open by the use of powerful ice-breakers. The city has at present 30,000 inhabitants; of these, 15,000 are Chinese and Koreans.

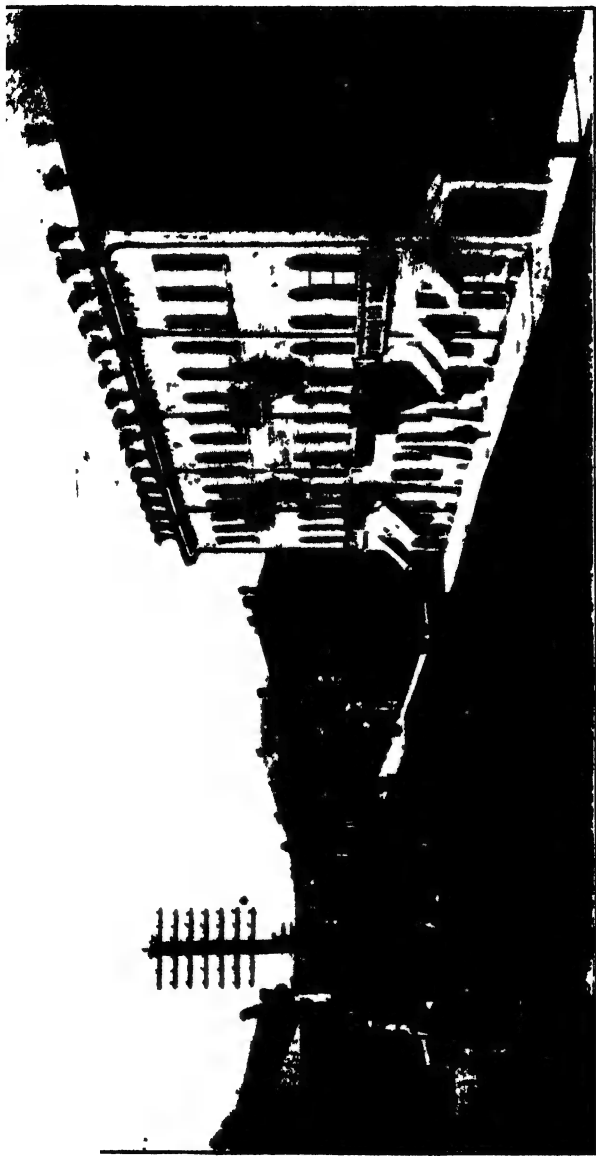
The principal streets are paved with cobblestones. A boulevard runs parallel with and near the Golden Horn. In this street are the principal business houses, postoffice, telegraph office, the Uspenskij cathedral, the Lutheran church, and marine barracks. Among the educational institutions must be mentioned the Oriental Institute for acquiring a knowledge of the languages of eastern Asia, and the museum of the Society for the Investigation of the Amur Province. A monument to Admiral G. I. Newelski commemorates his services as founder of the Russian power in east Asia; upon it are inscribed the words of Nicholas I.: "Where the Russian flag is once raised, there it shall never be lowered."

Two large department stores represent the business enterprise of the city. The principal hotels are: The Siberian Hotel, Pacific Hotel, Moscow Hotel, Central Hotel, and the Golden Horn. We cast our lot with the Siberian Hotel, and had no reason to regret our action, as it is the newest and cheapest of all the hotels. The proprietor speaks German fluently, while not a word of any language but the Russian is understood in any of the other hotels. Vladivostok is distinctly a military city. At present more than 15,000 troops are stationed here. Nine battleships are anchored in the Golden Horn, and numerous gigs are constantly on the way to and from shore. On Sunday the streets were crowded with sailors, and many of them were under the influence of alcohol and had to rely on their comrades in finding their way to the

vessels, from which they came in the morning in a more independent condition. The barracks, military and naval, are substantial buildings and add much to the imposing appearance of the city. Most of the private dwellings are wooden buildings. The board sidewalks, except on the principal street, are narrow, uneven, and insecure. The streets are poorly lighted by kerosene lamps. The dogs are numerous, vicious looking, and half starved, and render the nights hideous by their snarling and barking in their attempts to keep other dogs from sharing their uncertain scanty rations.

The confidence of Czar Nicholas I. in the safety of the Russian flag when it was first raised at Vladivostok will undoubtedly be sustained by future events. The neck of the peninsula on which the city is located is not more than three-quarters of a mile in width. A regiment or two of artillery with rapid-fire guns can hold at bay the largest army that could be landed on the mainland. The hills near the shore bristle with guns of largest caliber. The numerous storehouses for ammunition and supplies are well stocked and would furnish all that is needed during a prolonged siege. Direct railway communication between Vladivostok and Port Arthur will soon be established, so that troops at these two important strategic Russian points on the Pacific Ocean can be hurried from one to the other by land and sea. The great Transsiberian road connects them with European Russia.

Russia is concentrating troops at various points on the Schilka and Amur, and Transsiberian railroad, so that in the event of a war in Asia they can be transported without much loss of time to the seat of action. As in the time of Napoleon I., the long and severe Russian winter would prove a serious obstacle to an invading army. The Manchurian river border, formed by the



• WARSLAWSKI MAGAZYN.
A Department Store.

Amur and Ussuri, is entirely in the hands of the Russians at the present time, and the combined action of China, even if supported by a strong ally, would find it extremely difficult, if not impossible, to regain control over these two great waterways.

There are now three hospitals in Vladivostok—the Civil, Military, and Naval. The City, or Civil, Hospital is very inadequate for the purpose for which it is intended, as the city has quite a large floating population. It is fortunate that the city, with its very defective sanitary conditions, is almost exempt from typhoid fever. It is said that most of the few cases of typhoid fever that occur are imported. Bronchitis, rheumatism, and pneumonia are the prevailing diseases. During the months of July and August dysentery of the amoebic variety is quite prevalent. As the water supply is obtained from wells not exceeding thirty feet in depth, it requires no stretch of the imagination to predict that typhoid fever will soon infest the growing city unless effective sanitary measures are introduced in time and are carried vigorously into effect. With the increase of the population and prevalence of disease the city hospital will have to be enlarged and modernized. At present it has a capacity for only fifty patients and is very imperfectly equipped.

The Military Hospital can take care of 150 soldiers, entirely too small a space for the large military force stationed in and around the city. The equipments and nursing leave much to be desired. The Marine Hospital is the largest and best institution of its kind in the city. It is a substantial, modern building located on a high bank with large grounds, in full sight of the Golden Horn. It was completed in 1896 and has a capacity for 250 patients. It is in charge of a surgeon-in-chief, assisted by five physicians during

the summer months and twice that number during the winter. The nursing is done by four sisters of the Red Cross Society, a number of "Feldschers," and privates detailed for hospital work. The Red Cross sisters assist in the operating room and take part in the nursing of the patients. They receive thirty rubles every month, besides board, washing, living rooms, and service. The medical staff speak well of their services. The sailors who do most of the nursing are trained for one year for this special duty. The "Feldschers" are employed wherever their services are needed. The wards are scrupulously clean, the beds comfortable. The operating room is large and well lighted. The dressing room on the first floor is also used as an operating room for septic cases. The kitchen is supervised by one of the female nurses, but the cooking and baking are done by Chinamen hired for this special purpose. The black bread of the Russian soldier is made of pure, unbolted rye flour.

The surgical wards contained a number of accident cases, a case of acute appendicitis recently operated upon, phlegmonous abscesses, and other minor cases. Of the patients received in this hospital thirty-three per cent. are suffering from venereal diseases. In the medical wards we found bronchitis, influenza, rheumatism, nephritis, etc., and only two cases of typhoid fever. Scurvy is seldom seen here, only four cases during the last year. The most gloomy ward is the one occupied by patients the subjects of mental disease. The little rooms are well adapted for this class of patients and remarkably clean and well ventilated. The melancholic form of insanity is most frequent. At present this part of the hospital has in charge eight patients. If these patients do not improve in a reasonable length of time, and they seldom do,

they are sent to the Military Insane Asylum at St. Petersburg.

The operating case intended for active service is too bulky and not modern in construction. The Russian sailor when in health is on the following diet: Breakfast—tea, black bread, and buckwheat gruel; dinner—soup, meat, and bread; supper—soup, tea, bread, and gruel. He also receives daily three ounces of spirits. Dr. Lehmkuhl, through whose courtesies I was permitted to make a careful inspection of the hospital and its personnel, is a good German scholar and well versed in modern medicine and surgery. A little laboratory enables the staff to make careful analyses and bacteriologic examinations. The hospital has its own electric plant and steam laundry. During the past year 115 operations were performed.

All hard manual labor in Vladivostok is performed by Chinese and Koreans. These people for nominal wages make the streets and sidewalks, build the houses, saw the logs into lumber with a hand-saw, drive the freight carts, sail or row the sampans, raise and sell the vegetables, carry the baggage, etc. The Chinese are excellent carpenters, stone-cutters, and masons. The men who do the hardest work, such as sawing logs, cutting stone, carrying mortar, and digging in the streets, are naked down to the hips. The human sawmill is a very primitive affair. The log that is to be cut up into lumber is placed on a firm platform about eight feet above the ground. A saw about six feet in length with long sharp teeth and a handle at each end is the implement used. With a string dipped into a black solution the line of section is marked on the surface of the log. One man stands on the log and the other on the ground. By alternate action of the two men the saw is kept in motion. The

man on top of the log from his position manages the most laborious end of the saw. I have watched these men at their work many times, and every time I have been astonished by the strength and endurance of the human motors.

The Chinaman has become a necessity to the Russians all along the Chinese border. He is appreciated for his willingness to work, his patience, and obedience to the laws of the country. An ordinary laborer receives twenty-five cents a day, and an artisan from seventy-five cents to a dollar. The work begins early in the morning and continues until late in the evening, with one hour at midday for dinner and rest. Labor strikes are out of question here. With such small wages the Chinese laborer at the end of the year has probably more to his credit at his bank than the American laborer with four or six times larger pay. The Koreans occupy a separate part of the city and the settlement is known as the "Korean Village." It has a population of more than 1,000 and is intersected by two streets. A few small shops supply the inhabitants with the necessities of life. Of curios, we found Chinese and Korean tobacco pipes, tobacco pouches, and Korean shoes, a kind of a slipper made of cords. The Koreans are known from far by their white suits and strange hats. The well-to-do women and men wear garments made of raw silk. The village is exceedingly filthy; the natives are crowded together in small huts, and make no objection to the presence of pigs and chickens.

The traveler will have as good an opportunity to study the Koreans, their dress and habits, in this village as in their native country, as their surroundings have had no effect in changing their customs and manner of living. Many of the men act as substi-

tutes for mules and other pack animals, and can carry great weights upon a peculiar framework which fits the back and extends from the shoulders to the hips, and is fastened to the shoulders by means of straps.

Richard Theodore Greener is the commercial agent of the United States of America. He is a South Carolinian by birth and a graduate of Harvard University. He received his appointment two years and a half ago and has lived here ever since. He was the first one to unfurl the stars and stripes in this city. He lives in a house upon a high hill opposite the Russian-Chinese bank, from whence a splendid view of the city and harbor can be obtained. He is a loyal American, and does all in his power for his countrymen who come to the city.

He informed me that during the last year only twenty-one Americans came over the Transsiberian road. Compared with what is expected of him, his salary is insignificant and more than one-half of the clerk hire expenses comes out of his own pocket. There has been a great falling off of American imports since Vladivostok ceased to be a free port. This city is a very important commercial point for the United States, and it is fortunate that our country is represented by such a loyal, capable, enthusiastic, and obliging official as Mr. Greener. He is naturally anxious to come in contact with American citizens, and when they do come he wants to be of some service to them. He presented us with a bundle of Chicago newspapers, among them the "Tribune," with dates from April 1 to July 17, and although they did not give us much news information, the courtesy was very much appreciated. Two months is a long time to be without news from home, but such is the fate of the globe-girdler.

Mr. Greener informed us that the censorship exercised by the Russian government over the home and native press is very severe. All obnoxious articles are made illegible by a rapid process of inking with which the American is not familiar. A free press is the greatest educator of the masses and makes the country which it serves great. The Russian newspapers contain but little real news; their columns are largely devoted to local affairs and the movements of distinguished personages. Any American who makes a trip around the world will return to his home fully impressed with the greatness, energy, and power of the American press.

To the visitor at any foreign city the market place always furnishes an important object lesson. It represents the common people, the products of the soil, and the principal articles of manufacture in that particular locality. The Chinese and Koreans conduct the Vladivostok market. More than fifty fruit stands, exactly alike, offering the same articles for sale, are arranged in a single row around the square and are presided over by Chinamen. Siberian apples, plums, and pears from Korea and Japan, peanuts, walnuts, and grapes from the south, are sold for handsome prices. It is interesting to watch the little business transactions. The men laugh and chatter with each other when not engaged; they are anxious to sell, but display no jealousy or ungentlemanly rivalry. They seem to enjoy the sale the next neighbor makes as well as when the copper flows into their own greasy pockets. The business tolerance and good-naturedness are conspicuous virtues of these small-scale merchants. The next article most in demand is bread. The buyer has a good opportunity to satisfy his taste for this staple article of food.



VEGETABLE HAWKER.

Bread booths are numerous, and the Chinese proprietors will show you loaves as large as a small trunk and down to the size of a fist. Some of the loaves have a perforation in the middle as large as the full moon, a great convenience for the seller as well as the purchaser, as these loaves can be strung up on the arm and the number of loaves one can carry depends on the length of the arm of the purchaser. The buyer of bread has no difficulty in satisfying his tastes as to quality. In color and density there is a great variety. Bread nearly as black as coal and as solid as a stone is placed side by side with bread as white as snow and as soft as a sponge.

The vegetable display is most creditable. Cabbages as big as an adult's head and as firm as a billiard ball; carrots as yellow as gold, and beets as red as blood; lettuce, squashes, onions, snow-white turnips, string beans almost as long as a rosary, and the tender, mushroom-like cauliflower give testimony to the fertility of the Siberian soil and the diligence and skill of the Chinese vegetable gardeners. At a number of stands the visitor can quench his thirst by purchasing a bottle of kvass or soda water. Sea food is represented by several varieties of fish, oysters, shrimps, and mussels. The oysters are large, but poor, coppery, unfit to be eaten in any other way except raw. The shrimps are excellent. Eggs, smoked sausages and fish, cheese, and butter occupy the shelves of a large number of booths. The Russians must learn to produce and eat more cheese. The butter is white and tasteless. This inferior grade of butter is probably more the result of lack of skill in preparing it than poor quality of the cream. A few creameries, such as are to be found at Elgin, Illinois, and in southern Wisconsin, are needed in the cattle-raising parts of Siberia. A long row of

stands is devoted to the sale and manufacture of tinware, from the smallest tin cups and tin dippers to the largest bath tubs and stove pipes. With the most primitive implements the Chinese tanners make their ware with a skill and dexterity that will dazzle the eyes of the visitor.

Perhaps the most interesting part of the market is the large place set aside for the purchase and sale of second-hand goods. This is the refuge of the poor in need of clothing. Old coats, trousers, hats, caps, boots, shoes, shirts are piled up in profusion, and from the variety offered the prospective purchaser will have but little trouble in finding a fit. In another part will be found rusty hardware of all possible descriptions and representing the different trades. The poor Chinese artisan can buy here an outfit of tools for a few rubles which, after a liberal use of the grindstone, will do good service for many years. The young married couple with limited means will find this the right place to purchase second-hand furniture for a pittance. In short, the visitor will find in this market ample opportunity to study and reflect upon the past, present, and future of this part of Siberia.

Farming in Siberia to be remunerative requires energy, patience, perseverance, and no ordinary degree of forethought. Afterthought in this country is an expensive and often disastrous experiment. The Siberian soil is fertile, the sun does all it can during the short summer to make it productive. In many parts of Siberia, more especially in the Amur Province, grain raising is remunerative; on the whole, however, this country is better adapted for the herdsman than the farmer.

The Russian government is very anxious to populate Siberia with industrious farmers and intelligent

ranchmen. It does its share in establishing new homes by giving each immigrant family the use of a tract of land free of expense, agricultural implements to cultivate fifteen acres of land, a tarantass and span of oxen or a pair of horses, and fifty rubles in cash to make a start. The land is not sold, but leased, and the new settler is exempt from taxation for the first three years. This offer on the part of the government is a very tempting one, and has induced thousands of families to accept it. In many instances the venture has been successful; in others the new settlers have left the claim, impoverished and discouraged. The most formidable enemy of the Siberian farmer is the long and severe winter. All of the farm work has to be crowded within the narrow limits of five months. The long winter is a severe tax on the live stock. In many places where the snowfall is heavy the stock must be fed; in the Amur Province the snowfall is light and the cattle subsist on the dry grass of the prairies and mountain pastures hidden under a thin blanket of snow. Stock-raising is the coming industry, and by judicious management can be made sufficiently remunerative. Sugar beets grow to an enormous size, and with proper machinery beet sugar can be manufactured at a low price and be made a well-paying investment for the producer of the raw material and the manufacturer as well. Millet, clover, and alfalfa grow luxuriously and could be used advantageously as fodder as a substitute for hay in localities where the latter cannot be obtained. It is said that some years grain does not ripen, and on this account it will be well for farmers not to place too much confidence in the wheat, rye, and oats crops. A combination of stock-raising and agriculture will make farming in Siberia a success. The summer season is too short for the

ripening of corn. Potatoes and vegetables of all kinds can be depended upon as sure crops. Good highways and substantial fences in any locality are always sure indications of successful, remunerative farming.

Siberia is a new country, and consequently has few well made country roads. In the steppes the roads lead out in different directions from the hamlets to the grain fields and meadows to suit the convenience of the peasants. Two deep ruts mark the width of the tarantass and the central track is the path for the single horse. The cart or tarantass of the peasants is a very crude vehicle with a box made of lumber or laths, resembling very much in shape an old-fashioned cradle. Almost all of the hauling is done by these four or two-wheeled carts drawn by one horse. An American who has seen a good deal of Siberian farming said to me that American wagons were entirely impracticable with the present condition of the country roads, an opinion which I have every reason to indorse from my own quite extensive observations. American harvesters, steam plows, mowers, and threshing machines may soon find their way to large Siberian farms, and when they do make their appearance they will be the deathblow to Siberian labor.

Small farms with extensive pasturage are what the early Siberian settler needs to place his work on a remunerative basis and make his future position in the new country secure. Road-making will follow the construction of railways as the natural outcome of successful farming. Desirable material for fences is obtainable almost everywhere, and in less than ten years the traveler passing over the arable lands will find neat farms and large meadows and pastures inclosed by substantial fences for the protection of crops and the safe keeping of live stock.

The last few miles of the Ussuri railroad follow the shore of the Golden Horn, where the traveler catches the first glimpse of the Pacific Ocean. We were delighted to see the salt water, which at a great distance washes the shores of our own country. We arrived at Vladivostok, Saturday, August 25th, at 4:50 p. m.

CHAPTER XI.

THE SUBJUGATION OF SIBERIA—THE GREAT RAILWAY—ITS MILEAGE—ROADBED AND BRIDGES—LOCOMOTIVES AND CARS—OFFICIALS AND UNIFORMS—STATIONS—EXPENSE OF TRAVEL—TOPOGRAPHY OF THE COUNTRY FROM SSAMARA TO VLADIVOSTOK.

*I'll put a girdle round about the earth
In forty minutes.—Midsummer Night's Dream.*

WHILE the traveler acknowledges his inability to belt the world in forty minutes, as the above quotation from "Midsummer Night's Dream" prophetically suggests, the Transsiberian railway renders it quite within the range of possibility to encircle this sphere in forty days; and, therefore, it must be conceded that the construction of this great line of road represents one of the grandest engineering, financial, commercial, and strategic undertakings of modern times—a fitting product of the closing days of the nineteenth century.

The subjugation of Siberia began during the reign of Ivan the Terrible. The first step was taken in 1574, when that monarch granted the right to two brothers, Jacob and Gregor Stroganow, to erect fortifications at the Tabal, Irtysch, and other rivers for the purpose of protecting their extensive landed possessions. Under the terms of this permission the Stroganows, with a force of 6,000 Cossacks commanded by Iermack, penetrated far into the country; and, in 1581, entered Iskir or Ssibir, the Tartar capital of Siberia. Gradually the Russians' advance was carried farther to the east and the north, and in 1644 Pogorkoff, coming from Yakutsk, entered the Amur valley

and explored that stream for a considerable distance; and again, in 1649, five years later, the Cossack hetman, Khabarow (or Kabaroff), headed an expedition for the purpose of permanent acquisition of the entire territory of the Amur. It was soon discovered, however, that the races of this region were vassals of the Khan of Manchuria, and after a prolonged and determined struggle lasting for twenty-five years, the Russians were driven out of the country by the Chinese under the Manchu princes. The peace negotiations of Nertchnisk restored this province to China, and for a century and a half no further effort at occupancy was made by Russia. But now, the Crimean war bringing conditions and opportunities favorable for the annexation of this region, Count Muravieff, governor-general of eastern Siberia, in 1854 obtained permission of the Chinese government to convey a Russian force down the Amur to join the fleet under Nevelskoy. The following year, taking advantage of this permission, he ascended the river with a second and larger army, and in 1857, as a consequence of this move, the left bank of the stream was returned to Russia. By these negotiations at Peking the Ussuri district came under Muscovite rule, and in the same year the city of Vladivostok—"the Dominion of the East"—was founded. Thus Russia secured and has retained a foothold on the Pacific Ocean.

It was this acquisition of the Amur and coast provinces that made the Siberian railway possible, and this possibility brought the necessity for connecting these far-off eastern possessions to the central government by improved and modern methods of communication and transportation. The initial step was taken in 1857, but the project was abandoned for lack of funds. Later these efforts were revived, and different plans

and survey lines were suggested by both merchants and military men before the present route was selected. Finally, the road was actually begun on May 19, 1891, the present Czar, Nicholas II., on that date wheeling the first barrow of earth and laying the first stone at the eastern terminal at Vladivostok.

The construction of the road now proceeded from seven different points; the regular traffic service from Moscow to Serjetensk was opened in 1899; and the last rail was laid May 29, 1900, just nine years after its commencement, at which time the entire length of the road was declared open for traffic.

But going back a little we find that the Siberian road in reality begins at Ssamara, in European Russia. This, the actual western section, extending from Ssamara to Ufa, a distance of 453.19 versts, was commenced in the spring of 1886 and finished in September, 1888, at a cost of 241,222,252 rubles, or considerably over two hundred and twenty millions of American dollars.

In 1890 the road was extended from Ufa to Slatoust, in the Ural Mountains, a distance of 289.08 versts, and costing 20,430,481 rubles. Then came the extension of the line to Tscheljabinsk (usually spoken of as the western division), Irkutsk, and Serjetensk.

The middle division of the road begins at the station Irenokentijarskaja, on the right bank of the River Ob, and extends to Irkutsk and Lake Baikal, being 1,715½ versts in length.

The Transbaikal section, having a length of 1,035 versts, runs from the harbor of Myssowaga to Serjetensk, where steamer communication on the Schilka and Amur begins, and was finished on December 28, 1899.

We were informed by a government engineer, a

fellow-traveler on the train, that the extension of the line around Lake Baikal, which is now under construction, will be finished in five years, will have forty tunnels, and will cost when completed upwards of 43,000,000 rubles.

Lastly, the eastern or Ussuri division, connecting the cities of Vladivostok and Khabarowsk, covers a distance of 721 versts, with a money outlay of 43,042,388 rubles, extends along the coast for seven versts, and terminates on a peninsula at an elevation of 487 feet on the Bay Golden Horn (Tolostoi Rog). It was opened in 1897. Lake Baikal is crossed by ferry, and from Serjetensk on there is now a break or gap in the road of 1,300 miles (2,000 versts), which is filled in by steamers on the Schilka and Amur rivers.

The original survey, which followed the Russian bank or shore of the Amur, gave the estimated distance from St. Petersburg to Vladivostok at 9,877 versts, or about 6,250 miles. From Ssamara to Irkutsk is 3,990 versts, or 2,660 miles; and from Ssamara the road follows, with a few deviations, a general southeasterly direction to Lake Baikal, and from there on assumes a rather northeast direction to Serjetensk. From Khabarowsk to Vladivostok it is directly south in its course. The actual length of the whole Siberian road is 6,445½ versts.

There are two principal branches or spurs of the road. One extends from Tscheljabinsk to Jakaterinburg, and the second, a short one, connects the station of Taiga with the city of Tomsk. The Manchurian road, or more correctly, the Manchurian continuation of the Siberian road, the construction of which was temporarily interrupted during the recent disturbances in China, is now being pushed on to rapid completion, and extends from Budalofski on the trunk line to

Vladivostok, thus greatly shortening the distance to this seaport. Again, at Hartin, on the Sungari River, almost in the very heart of Manchuria, this road is intercepted by the branch to Port Arthur, which again lessens the distance to the Pacific Ocean, and also gives Russia a sea outlet remote from the rigors of a long Siberian winter, the principal commercial drawback to the location of Vladivostok.

For the greater part of its length the track is almost perfectly straight, often reaching out in unbroken stretches as far as the eye can reach, and with the exception of the two mountain ranges over which it passes has comparatively few curves, deep cuts, or steep grades. The roadbed is well laid and leveled on evenly cut ties, which are solidly tamped and embedded, and on the western and eastern sections and along those localities where stone and gravel can be obtained is ballasted with rock and coarse gravel. The rails, however, are below the standard weight employed in America, and although not meriting the description given by a recent author, who likened them to "two streaks of rust across Siberia," are evidently too light for the demands of this great road, and, undoubtedly, will soon be replaced by those of requisite weight and strength. Another point, possibly insignificant, that strikes the non-professional railroad man is that the rails are broken, that is, jointed, exactly opposite each other and not at irregular intervals, such as used in the construction of our own roads. This causes the jolt to come on both wheels at the same moment, and theoretically should greatly increase the jostle incident to fast travel.

The sidings or switches are numerous and very long, so much so as to suggest the intention of building a double track in the near future, and certainly

affording ample accommodation for the long freight trains that are frequently met with.

There are over thirty miles of bridges on the road. Many of these structures are of iron and most substantially built, and are supported by handsome and heavy hewn stone piers or pillars and culverts. The longest and most noteworthy of these bridges span the Ob, the Irtysh, the Yenisei, the Tschulym, the Tom, and the Oka. Clearly figured verst-posts mark the distances; the embankments are carefully sodded, and rocked where a greater tendency to washouts makes its necessary, and the track is well ditched and kept free of weeds and grass.

Coal and kerosene were used on our train over two or three sections and fir wood also for some distance on the Transbaikal division, but birch was practically the fuel employed; and, as this wood evolves but small volumes of a light-colored smoke, we found travel most of the distance to be unusually clean, and free from the cinders and soot so annoying on all roads burning coal as fuel.

The woodyards of silver-barked birch are conspicuous and frequent objects along the route—the rounded trunks, sawn in equal lengths and piled in long and even rows, are both ornamental and attractive, and were watched for from the car window as regular outlying posts of a nearby station.

The Siberian road, as are all the railways in Russia, is under government control, and is operated in its entire length on St. Petersburg time. This was found to be quite confusing and really troublesome, and as we were constantly going east, the true or local time was daily, almost hourly, getting faster, necessitating frequent alteration or change in our calcula-

tions as to the time for meals and the hours for rising and retiring.

The equipment of the road seemed to be ample and of good quality and material. The freight or box cars are lighter and shorter than those in use in America, and have only two spoked wheels at either end—unless the car is longer than the average, when a third set of wheels supports the center—instead of the double truck with four wheels which we are accustomed to see. These cars have also double couplers of a peculiar pattern, one above the other, which are further reinforced by heavy link chains on each side, thus reducing to a minimum the risk of breakaways in long trains passing over the steep grades of the long mountain ranges. There are two buffers at each end of the car in the shape of heavy iron mushroom-like disks about a foot across, with heavy stems passing from the center back to powerful spiral spring sockets, on which the impact from the adjacent car is received.

The engines or locomotives, which are of the ordinary size, are probably of English make, but at least twice we were able to recognize the powerful machine of American type and manufacture. There are no bells on the locomotives and the signal rope passes on the outside of the cars on both freight and passenger trains.

Large and handsome machine and repair shops and roundhouses, built of stone or brick, are located at convenient stations.

There are three classes of passenger trains. The first, operated under the *Compagnie Internationale des Wagon-lits et des Grands Express Europeen*, which may be appropriately designated as the *grand train de luxe*, and which leaves Moscow three times a month,

is the train that was exhibited at the late World's Fair at Paris, and was so admired and created such favorable comment in railroad circles throughout the two continents. This vestibule train runs on the fastest schedule time, makes the entire distance from Moscow to Irkutsk without change and with only necessary stops, and hauls only coaches of the first and second class. We had an opportunity of getting a fair view of this train as it passed us on a siding, and from this somewhat hasty inspection we would say unhesitatingly that it is by far the handsomest train of railway coaches to be found in any land. The train combined first and second-class accommodations, and was composed of baggage car and four coaches, which latter were built entirely of light walnut wood in its natural rich finish. There were sleepers, dining, reading or library cars, and an observation car at the rear; but descriptions of this celebrated train have already appeared so frequently that it is not necessary to describe it minutely again.

Of the other two trains, one known erroneously to the general public in Russia and Siberia as the *train de luxe*, leaves Moscow semi-weekly and makes the trip to Irkutsk without change in eight and a half days and with but few halts; and the other or regular daily train, which has one change at Tscheljabinsk, travels on slow schedule time, stops at all stations, and takes two days longer to reach its destination.

The semi-weekly train above referred to corresponds evidently to one of the many fast express trains on the trunk lines in the United States, and is vestibuled and composed of mail and baggage cars, one or two sleepers, dining car, chair or reading car, and observation coach; and, from the cursory and incomplete examination allowed us, was apparently of about

the same arrangement and interior finish as the similar class of American trains.

We had expected to take this train at Ssamara on the morning of July 26th, but failing to secure the necessary reservation by telegraph, found that there were only two vacancies, which were insufficient for our party of four, and so were compelled to wait until that afternoon and take the regular daily train. We knew that the travel on the Siberian road was quite large, 1,075,000 persons having been transported over the line in 1899, but we were not prepared to find this second train also very much crowded. However, after applying to the necessary authorities, in which we were kindly assisted by Dr. Dsirne, of Ssamara, an extra coach was added, and we soon found ourselves en route for far-off Siberia.

It is not without interest to describe the train that was our habitation for eight days and nine nights. This was composed of baggage and postal cars, and eight coaches or carriages divided into three classes—the first, second, and third classes. The first-class coach was of the compartment pattern seen on the majority of European roads and not unlike the Wagner car, having a narrow passage or corridor running along the length of one side. This aisle is the common passageway, and affords room for two persons of ordinary dimensions to pass, but is of insufficient limit when persons of large avoirdupois and capacity of girth meet, as was amusingly demonstrated in the case of one of our party, and mentioned in a former communication. Opening into this passage were eight compartments, containing each two berths, which were convertible into four double compartments or staterooms by communicating doors. These rooms were of comfortable size, with long and broad seats, the back of the lower

one lifting up to form the upper berth. There were two windows, one in each side, affording ample ventilation; the upholstering was of leather protected by clean striped linen covers; the walls or sides were covered with a heavy glazed olive-colored cloth of neat arabesque figure; the sliding doors had large mirrors in the upper panels, and the woodwork of the entire interior was of black walnut finished in oil. The space under the seats was occupied by hot water coils for heating; ample baggage racks were placed along the side near the ceiling; candles in stationary lanterns furnished the light, and a combination ladder and desk formed an article of furniture of great use and convenience. These quarters were of a most comfortable and even luxurious character, and will long be remembered in connection with one of the most pleasant and agreeable railway journeys, notwithstanding its length, we have ever taken. Of the lavatory and toilet arrangements, however, we cannot speak in the same commendatory terms. These apartments, of which there were two, were entirely inadequate for the needs of the passengers. They were cramped and dirty and foul smelling; but one thing can be said, fresh water was furnished in abundance. This car had neither special conductor nor porter, and the necessary cleaning was done by women and men at the stations twice each day. Neither towels, bed linen, nor soap were furnished, the passengers being expected to provide themselves with these articles.

The second-class car differed but little from the first-class, having possibly less neatly-finished woodwork and plainer upholstering, and our only reason for incurring the additional expense of first-class tickets was to avoid the crowd, which is always much greater in the second-class.

The third-class, however, is emphatically what its name implies, and consists of plain wooden seats without upholstering, the backs of which lift up and serve as sleeping shelves.

There is a fourth-class car of even poorer outfit, and still a fifth-class without seats, in which either men or cattle are transported, but neither of these was attached to our train.

The only noticeable feature about the postal car is that instead of the sliding door usually seen, there are double swinging or hinged doors opening outward like the doors of the old-fashioned carriage or stage coach. The exterior of the train does not compare in appearance with our Pullman and day-coach trains. Each car bears the imperial coat-of-arms, either stamped or in cast metal, on the side, with the name and number. The third-class cars are green in color; the second-class a deep chrome yellow, and the first-class a dark blue; and where a coach is divided into first and second-class compartments, as is frequently the case, this is indicated by one-half being blue and the other yellow. The train was supplied with patent air brakes, and the same couplings and spring buffers employed, together with the two spoked wheels at either end as on the freight cars, except on a few of the very heavy first-class coaches, evidently of American make, the double trucks with four wheels were in use.

On our journey through Siberia we saw only two prison cars, connected with an ordinary train, but except the guard of soldiers and the grated windows with the faces of the convicts pressed against the heavy iron bars, there was nothing to distinguish them from the fourth-class car.

The personnel of a passenger train is, so far as we were able to observe, composed of the conductor,

trainmen, postal officials, engineer, and fireman, all of whom except the last two are uniformed, of course, in this "land of uniforms." The conductor wears a white cap with black visor and ornamented with a silver and magenta-colored band and small silver rosette just above the brim, loose black trousers, high boots, black frock coat bound with silver and magenta and having bands of the same colors around the sleeves at the cuffs, black leather belt, and braided silver and magenta shoulder-straps—these latter, together with a whistle suspended from the neck, being the insignia of his rank.

In the case of the trainmen the only difference in uniform from that worn by the conductor is the absence of silver ornamentation and shoulder-straps. Furthermore, the trainmen wear suspended from the left side a leather scabbard which sheathes a red and a green signal flag, ready at hand for any emergency—a practice that might be imitated to advantage by our own roads.

The postal officials also wear the inevitable cap, which is black with silver trimmings, double-breasted black sack coat with silver buttons, yellow and silver shoulder-straps, silver braid on sleeves, black trousers having yellow cord down the side, and top boots.

Besides there is the station master (or mistress), uniformed similarly to the train conductor; and the station guard, who stands at attention all resplendent in his gay apparel of white cap, white blouse coat girded at the waist and ornamented with red straps on shoulders, red epaulettes and brass buttons, blue trousers, high boots and spurs, sword and revolver, and white cotton gloves.

The management of the train is conducted with order, precision, and a pleasing quietude. There is

no confusion or loud talking on the train or about the stations, and every order and command is issued alone by station bell and whistle of the locomotive.

The Russians are proverbially a stolid and phlegmatic race at all times, little given to hilarity or loudness—even the usual city noises and hums being much less pronounced than in the New World—and nowhere is this more noticeable than at their railway depots. When a train is about to depart the telegraph operator, besides furnishing the written orders to the conductor, conveys the leaving order to the station master, who gives two taps to the large bell that hangs at the entrance of every station. This is the leaving signal, and in from three to five minutes is followed by three strokes, the order for leaving; this the conductor answers with his whistle, which in turn is recognized by a whistle from the locomotive, then a second whistle from the conductor, and again the engine replies, and the train quietly moves out of the station. This is all that is heard or seen; there is no bustle or hurrying to and fro, no long locomotive blasts, no noise from escaping steam, and nothing resembling the familiar “all aboard” is ever to be heard. The train usually arrives and departs on schedule time, and notwithstanding the fact that our train was a slow local one, with frequent, long, and, apparently, unnecessary stops, we invariably left each station at the advertised hour.

The station houses were surprising in their appointments and general appearance. They are one-story buildings of pleasing and ornamental design, usually built of wood, but occasionally of stone or cemented brick, and as a rule painted a dark brownish-yellow with the gabled roof and cornice of a red or green color. Prettily-platted flower gardens at each side,

surrounded by a low fancy fence, are pleasing to the eye and add much to the attractiveness of the station.

The station house contains railroad offices, first and second-class waiting rooms, and other necessary departments, and a lunch-room or restaurant. This latter deserves more than passing mention, since in many respects much can be learned from the methods on which they are conducted, even in a more civilized land. One or more long tables, with smaller ones, according to the capacity of the apartment, are ready spread with clean linen and tastefully decorated crockery for serving on the arrival of the train. Each of these tables is usually decorated with several large artificial palms or flowers, around which are grouped the different wines to be procured at this restaurant. At the end or side of the room is a long buffet counter on which are spread the various articles of food, all in large covered platters, kept steaming hot over large, bright metal heaters or warmers. A printed menu gives the price of each article, and the hurried traveler, with often not longer than ten minutes in which to refresh himself, has simply to go direct to this counter, select whatever dish he desires, which is then served to him at the table. This method is of especial aid to the stranger unfamiliar with the native tongue, for here sign language, a simple point with the finger, is sufficient to supply his wants with little delay. And just here a word must be said in regard to the Russian kitchen. Nowhere in any country is there to be found on an average better railway eating-houses, and one may depend upon the asterisk of Baedeker for a "bahnrest" where a good and well-cooked meal may be obtained.

The Russian cook is *princeps facilis* a master in the art of boiling, roasting, and baking; and at most of

these lunch-tables the dishes of roasted fowls and birds, baked pig, boiled and roasted meats, with vegetables and other tempting dishes, present a most appetizing sight to the tired traveler, who is more often than otherwise ready for a half dozen meals a day. The one thing lacking was good, fresh water, upon which we of America so greatly depend. But Siberia does not differ in this respect from European countries, and we soon learned to be content with the bottled effervescent waters, wines, and beer, all of which can be procured at these stations of excellent quality and at most reasonable cost.

In addition, separate from the stations are long sheds with booths or stalls, where good bread and nicely prepared meats, eggs, chicken, boiled milk, and other foodstuffs can be procured by the third-class passengers at ridiculously small expense. The fruit and nut venders and the usual hucksters are seen at all times.

The government of Russia is doing everything to encourage emigration into Siberia, and offers every facility to her emigrant travelers. Thus can be seen at many of the principal stations extensive wooden barracks for their accommodation, and at all of these sterilized hot and cold water and medicines from a well-supplied medicine chest, together with first aid services rendered by a competent person, are dispensed free of any cost.

The average stations are well lighted with kerosene oil, and the larger and more pretentious ones have electric illumination; and at all of them is seen a row of painted water-barrels on wheels for use in case of fire.

Among the conspicuous objects connected with the road are the handsome and artistic water towers that

are seen at short intervals. These towers stand some distance back from the track, are about fifty feet high, square or more often octagonal in shape, and are constructed of cut stone or brick up to about the height of thirty feet, where a second story, as it were, of painted wood encloses the tank. A pagoda-like roof covers the top, through which passes the smoke-pipe coming from the engine below. The water is thereby kept from freezing during the long cold winter, and is pumped from its source to the tank, from which it is conducted by pipe to a hydrant placed in convenient reach of the train. These structures are the first objects to attract the attention along the road, and one never tires of admiring their regular and graceful proportions.

The cost of railroad travel in Siberia is remarkably cheap. A first-class ticket on the ordinary daily train from Moscow to Irkutsk, a distance of 5,107 versts, or $3,404\frac{2}{3}$ miles, which includes transportation and sleeping accommodations (without linen), together with stop-over privileges, is sold at 75.60 rubles, or \$38.25, a rate of $1\frac{1}{4}$ cents per mile; and the second-class fare costs little more than one-half, or 45.35 rubles, or \$23.02½ of our currency, under $\frac{3}{4}$ cent per mile. The third-class is but nominal in rate, which allows the poor and penniless emigrant to reach his destination in the far-away wilds, whither he goes cheered and encouraged by the ever-present hope that comfort and possibly fortune awaits him.

On the *grand train de luxe* of the International Company there is in addition to the regular fare an extra charge of 18.90 rubles for the first-class and 11.34 rubles for the second-class, with still an additional ruble when the seat or berth is reserved ahead of train time.

We have already described the scenery of certain localities of the road, but it is proper in this connection to take a general glance of the continuous scene that passes in review before the traveler as he hurries along this long line of railroad.

From Ssamara to the foot of the Ural Mountains the road passes through the steppe region of Russia, rising to plateau after plateau in easy ascent. These vast plateaus or tablelands extend as far as the eye can reach, and, although not so highly cultivated as the fields of western Russia, are equally fertile and abound in broad expanses of wheat, oats, and other grain, calling to mind the grain fields of Minnesota and Nebraska. For the most part they are level plains, well watered by frequent streams, and wooded with the larch and the fir, and the silver birch, of which the latter predominates, but become more and more undulating as the range of mountains is approached. At the foot of the Ural range the country changes suddenly to rising hills, which increase in height until the actual mountain peaks are reached.

The Ural Mountains are rather disappointing to the traveler who has stood before the majestic presence of Mont Blanc or viewed the landscape from the dizzy heights of the Rockies; but the change from plain to mountain, the rounded peaks covered to the very summit with the tall and graceful cedar, the frequent mountain streams and rivulets rushing along in eddying currents to the larger and more pretentious Au River, and the beautiful and picturesque valley and ravine that greet the eye at frequent turns, produce a picture so charming that it will long linger in the memory.

The Ural range, as is well known, has no splendid or lofty peaks, and the line of road taking advantage

of the gradual ascent afforded by the valleys and mountain passes through which the streams meander, climbs upward by easy grade and gentle curves, without tunnel and only moderately deep cuts. This changing scenery continues to the broad mountain plateau, interspersed with forest and field and lovely park-like sweeps of timbered hills and dells, until the summit is reached where stands the little yellow stone monument marking the dividing or boundary line between those two great divisions of land—Europe and Asia.

Passing over to the Siberian or Asiatic side, the flat country is suddenly reached at the mountain base, and from now on to beyond the city of Omsk stretches the great Siberian plains, dotted with lakes and streams that glisten silver-like in the bright rays of the morning sun, over which in ages past roamed the powerful tribes of Asiatic peoples with their herds and flocks, and made memorable in history as the field where Genghis Khan marshaled his Tartar hordes and extended his imperial sway over all the land down to the doors of India.

These plains become less rich and fertile as the distance increases, but are luxuriant in pasturage, and over them at varying distances are seen large numbers of cattle, sheep, and horses. This almost limitless expanse of plain, extending over 700 miles, broken only by occasional clumps of dwarfed birch, forms a landscape that would become monotonous and tiresome were it not for the lakes and streams, together with the occasional log house or the weather-worn tent of a Kirghis, that are interspersed at not infrequent intervals. As we travel onward the outlying ridges of the Baikal Mountains are seen stretching in a faint blue line on the distant horizon; the country gradually

changes and again becomes more rolling, the trees increase in size and numbers—the oak and fir intermingling with the birch and cedar in goodly numbers—and fields of grain spring up on every side. This variety of scene, changing from rolling plateau and boundless plain to the dense wilderness of forest, the cultivated hillsides, the flower-decked and grassy meadow, with occasional morass, gradually assumes the mountainous aspect on to Irkutsk.

The scenery of the Urals presents more of the picturesque and beautiful than the grand and lofty, but the Baikals combine the beautiful with the grand, and when the heart of this great mountain range is reached the picture is as splendid and superb as can be found in any mountain region of the world.

From Irkutsk to Baikal Lake the route follows the course of the rushing waters of the Angara River, and nothing can excel the combination of the lovely with the grand that is seen on this short and winding length of road. The rapidly-flowing river, spreading out in shallow and placid expanses with islands of greenest hue bosomed upon its waters, then narrowing to a deep and whirling stream rushing madly between rocky gorges, the precipitous mountain side, jutting rocks and stately forest, ravines and valleys of deepest green, all form a picture that no pen can depict and no canvas portray.

The impressions produced by the Holy Sea—that awe-inspiring and mysterious inland sea at an elevation of 1,500 feet—with its fathomless depths and cliff-bound shores; the rugged views of the tortuous Schilka, and the striking and varying picture along the banks of the majestic Amur, will be presented in another place.

From the little harbor of Myssowaya, on the

eastern shore of the lake, the road climbs along through the same magnificent and ever-changing scenic panorama of mountain peak, precipitous and sloping, dense forests, deep ravines and lovely valleys, broad mountain plateaus and cultivated hillsides, meadows and plains carpeted with flowers of the loveliest hues, with winding streams ever and anon coming into view, until the Schilka River is reached. For many miles the road now follows the bendings of this wonderful river down to Serjetensk, its landscape changing from cliffy shore and exquisite mountain views to rich savannas and level plains blossoming with the marguerite, the lily, and the marigold of gorgeous color, and hillsides clad in the richest green of the birch and pine.

Along the last 500 miles from Khabarowsk to Vladivostok the scenery again rises to the superb. For the first miles there are the heavily wooded forest and tree-covered hills of varying heights, rippling brooks, and rocky ravines. Then comes the open and elevated prairie land with its fertile, loamy soil, extending for miles away, and then, as we near its terminus, the railway skirts the beautiful bay high above the water's edge, and finally reaches the city of Vladivostok, enchantingly seated on the Golden Horn with a bay on either side (the Amur and the Ussuri), and a mountain background of smoky blueness. Looking back over the thousands of miles covered by this road of iron, the country through which it passes, and the many engineering feats required in its construction, these lines come to our lips:

I attempted a difficult task, but there is nothing noble that is not arduous.—Ovidius.

for, indeed, a difficult and arduous task was attempted and successfully accomplished.

In bidding adieu to this part of our journey we leave only words of commendation for the great Trans-siberian railway, and notwithstanding the fatigues and trials of so long a travel, we feel assured that with its comparative comforts, the novel pictures it offers, and its attractive scenery, it will prove a revelation to the true traveler who seeks this route around the world.

CHAPTER XII.

THE JAPANESE SEA—TYPHOONS AND PIRATES—MAL DE MER—
THE BEST TIME TO TRAVEL—NECESSARY SUPPLIES—THE
"AMUR"—NAGASAKI—OUR FLAG—JINRIKISHAS—THE TRIP
TO MOGI—STREET MERCHANTS—THE HOSPITAL AT NAGA-
SAKI—HOTELS AND LAUNDRIES.

*Yet the wide expanse of sea witnesses many sad
scenes.—Ovidius.*

THE short stretch of the Japanese Sea, a long arm of the Pacific Ocean that separates Siberia from Japan, is a very treacherous body of water.

It is good-natured, but quick-tempered. It can be as smooth as a mirror and mimic a sleeping beauty to perfection, but when roused to anger it makes the largest ships tremble with fear and lashes the many islands along the west coast of Japan on one side and the rock-bound coast of Korea on the other with the fury of a demon.

It is the favorite pathway for the terrible typhoons, that swallow ships with all their contents as quickly and dexterously as a pelican pockets a minnow in its enormous pouch. When the typhoon touches the bosom of this great ocean sea it lifts its briny water for miles into the clouds, twists this enormous column thousands of times, and with an ease and dexterity that are beyond the comprehension of human knowledge brings death and destruction to everything that comes within its cruel grasp. The typhoon is the terror of the seafaring men of the Japanese Sea. The typhoon never fails to make its annual visit and selects in preference the months of August and September. It is during these months that the Japanese Sea is ill-behaved and angry. It is during this time it is most

treacherous, luring by its smiles the unsuspecting sailors upon its territory, and once there it gives vent to its passions, bent on the destruction of its helpless victims. The typhoon comes and goes without any formality; it does not wait for an invitation, and once on the ground, it completes its work of destruction without mercy. It knows no compromise; the only way to deal with it safely is to avoid its deathly embrace by flight. The typhoon does not stand still; it is fond of a race and frequently overtakes its trembling victims in their race for life. The typhoon disappears as unceremoniously and mysteriously as it comes. No one knows from whence it comes and whither it goes. We can say of the Japanese Sea in Juvenal's words:

"Trust not to outward show."

The violet-blue color of the water when the sea is at rest is pleasing to the eye, and has a hypnotic effect on the dreaming observer, and the glass-like smoothness adds to the seductiveness of the deceitful charmer. This peaceful picture that presents itself to the outgoing passenger is of short duration. On leaving the harbor the indications of the atmosphere and sky are in harmony with the sleeping water and the passenger at peace with his stomach and the part of the world that surrounds him. Before the coast line disappears from view a brisk wind springs up, and in less than an hour the sea becomes a seething, frothing, howling monster. In its anger it changes its color from blue to black, with a tint of light green near the crest of the mountain-like waves, surmounted by a drift of snow-like foam. It plays with the ship as with a toy, the waves lift it and throw it to one side, then the other, raise it on its keel only to plunge its head into the dark

valley opened by waves that do not know how to keep step. The gymnastic movements of the ship have the feared effect on its human freight. The rocking and pitching are more than the ordinary stomach can tolerate with impunity. The passengers, happy and gay as long as the ship was gliding smoothly over the sleeping water, soon change their external appearance as well as their mental disposition. The noisy conversation gives place to silence, laughter to sighs, the ruddy cheeks to pallor, the proud, firm gait to a labored, humble walk. A feeling of dizziness and sense of lassitude announce to the sufferers that the stomach will soon be called upon to pay its tribute to the torturing sea. It is a somewhat delicate matter to empty the stomach in presence of spectators, so one after another seeks the privacy of his cabin to suffer in silence and seclusion the disease inflicted by the commotion of the sea.

The emptying of a sick stomach under ordinary circumstances brings well deserved relief; not so in cases of *mal de mer*. The stomach is the objective point in such cases, and it matters little whether it is full or empty, work it must, and the more it works the greater the distress. The decks of the tumbling, rocking ship are soon cleared, from the cabins issue the audible effects of the disease. Stewards and stewardesses are summoned to bring relief to the wretched sufferers. They perform an ungrateful task, as nothing seems to allay the indescribable agony in the region of the stomach. There is only one sure remedy for this strange disease, and that is removal of the cause which produced it—pacification of the sea.

The Japanese Sea knows how to test the aptitude to seasickness of the voyagers who entrust themselves upon its treacherous bosom. When you cross this sea

be prepared to suffer the consequences when in angry mood. On our way from Vladivostok to Nagasaki we enjoyed the good nature of this oriental part of the Pacific Ocean for nearly a whole day, when it gave us an opportunity to see and feel what it could do in the way of rocking and pitching our ship. The cradle-like motion of the ship was too much for many of the passengers, so that deck room was ample for the fortunate few who were not made aware of the anatomical location of their food receptacle.

The Japanese Sea has been swept by thousands of typhoons, its turbulent waters have often made men feel the frailty of their craft, and the angry, hungry waves have engulfed many a noble ship with its freight of valuables and men. It has witnessed many other sad scenes, more terrible than the fury of the storm; it has seen many a time demons in human form satisfy their thirst for blood and lust for gold by murdering and plundering shipwrecked men. A pirate is a criminal far below the scale of morality of the highwayman, as he preys on the defenseless, half-starved, exhausted victims of the storm. From his secret perch he watches the march of the storm, and the moment the unfortunate ship is cast on shore and made helpless by the destructive waves, he completes the work the murderous storm failed to complete. The pirate is a coward, he takes no chances on his life, and like the beast of prey, awaits the moment when his victim is unprepared and helpless. It is the pirate's life and his ghoulish acts that have given so many sad scenes to the Japanese Sea. This sea has been a paradise for this, the meanest and lowest class of murderers and thieves. The many islands on the Japanese side, the rocky shore of Korea, the Tsuskima and Matsushima islands in line with the route from Vladivostok to

Nagasaki, have from the most ancient times furnished all the conditions a pirate could desire to ply his fiendish trade. A pirate looks for a treacherous sea, a dangerous coast, and a good hiding place as the most essential requirements for a successful, remunerative career, and no large body of water offers better opportunities for the brute in human form than the Japanese Sea. It must have been the Japanese Sea Ovidius had in mind when he penned:

*Yet the wide expanse of the sea witnesses many
sad scenes.*

Before I say good-bye to Siberia it may not be amiss to take a brief retrospective view of our trip through Russia. A number of travelers who have made the journey through Russia by way of the Transsiberian railroad, have recorded their experiences in journal articles and in book form. Much has been said concerning the many trials, deprivations, and inconveniences incident to such a trip. From what I have seen and read I am satisfied that August is the best time to travel through Siberia and that the route from west to east is the one to be preferred. June and July are the hottest months; the heavy rains during the early part of August cool off the atmosphere, settle the ankle-deep dust of the cities with unpaved streets, and raise the waters of the Schilka and Amur. By traveling against the sun the voyage on the Schilka and Amur is hastened by the rapid current of the rivers. From the recorded experiences of others I infer that insect life is more troublesome during the months of June and July, as the only insect that gave us any discomfort was the ordinary house-fly on the Schilka and Amur rivers.

Another advantage in making the trip the latter part of summer is the avoidance of the largest number

of tourists that tax the steamer, railway, and hotel accommodations during the months of June and July. We left Virballen, the Russian station on the German border, at 1 a. m. July 19th and arrived at Vladivostok at 4:50 p. m. Saturday, August 25th. This was a long time in traveling over a distance of less than 10,000 miles by rail and steamer exclusively, but the time spent on the slow trains was well invested, as it gave us the best opportunities to make the desirable observations along the road and at the many stations. During this part of our journey we spent from one to three days at the most interesting cities.

For the benefit of subsequent travelers over the Transsiberian road I would emphasize the importance of supplying themselves with a blanket, two sheets, a pillow, several towels, material and conveniences for making their own coffee or tea, and a lunch basket with well-selected contents for the first morning meal. With such conveniences the trip can be made one full of pleasure and with little or no inconveniences. It was a good cup of coffee, bread, and butter at the desirable hour in the morning that we missed more than anything else. The only well-founded complaint that we could make applies to the steamer "Ural," hence once more the well-meant advice, "Avoid the 'Ural!'"

The railway officials were uniformly courteous, and all of the passengers, high and low in the social scale, young and old, in their behavior toward strangers would discount a similar number of Americans.

The Siberian sceneries from beginning to the end of the journey through that wonderful country are simply indescribable in their quiet, peaceful, modest beauty; no pen, no artist's brush can do them justice. For the lover of nature and nature's wonderful pro-

ductions Siberia offers inducements to the traveler that cannot be equaled by any other part of the globe. No tourist in search of recreation and knowledge should satisfy his ambition until he has seen with his own eyes the flower-strewn steppes, the tree-clad, peaceful mountains, the natural parks, the flower gardens of the subalpine regions, and the majestic rivers of the largest country of the world so recently thrown open to the traveler by the Transsiberian railroad. It is with a sense of profound regret I say adieu to the land of forests, mountains, flowers, green pastures, blossoming meadows, and great rivers.

Nothing could be more interesting and startling than the changes witnessed by a journey from new Siberia to old Japan. Siberia is natural, Japan artificial. This applies to everything around and about you. The very size and location of the two countries are in striking contrast. Vast Siberia on the broad mainland of Asia; little Japan made up of numberless islands built by volcanoes that have battled for thousands of years with the ravages of the aggressive sea. Siberia, the virgin land, with primeval forests, great rivers, natural parks, and flower gardens; Japan, the island land, where every foot of arable soil is cultivated, the land where trees are stunted by the meddling ingenuity of man, and where the natural flowers had to give way to the gardener's caprice in the selection and cultivation of flowers. Coming from Siberia to Japan is like entering a new world, like stepping from the garden of Eden into a country inhabited by man for thousands of years.

We commenced this part of the journey Wednesday, August 28th. We had been informed that the steamer would not leave until Saturday, and were consequently agreeably surprised when we received

word to be on board Wednesday morning. Our ship was the "Amur," a pretty little ocean steamer in the service of the Russo-Chinese Railway Company. We were in ignorance concerning the real cause of changing the time of sailing until we were aboard the "Amur." While observing from the upper deck the usual scenes attending the departure of an ocean steamer, a carriage drawn by two magnificent black horses drove up to the landing, and the universal attention which the arrival of the carriage excited was enough to show that it contained some distinguished personage. A tall, stately-looking gentleman in the uniform of a general stepped out, followed by two young women; the fourth person, a matronly-looking woman dressed in black, remained in the carriage. One of the young women, accompanied by a woman attendant, came on board, and a number of stewards vied with each other in attending to her more than liberal amount of baggage. This young woman at once took possession of the captain's room, and the attention she received on all sides indicated her high rank.

It soon became known that she was one of the daughters of the Governor-General of the Amur Province and that the general who had accompanied her to the ship was her father. The Governor-General, standing as erect as a colonel during an evening parade, towered above anything and everything around him in the shape of men and with a dignity that would have done credit to any of the crowned heads of Europe. He is a very popular and influential man throughout Russia, and has an enviable record behind him as a soldier and as a ruler.

It was very clear to us that we owed our early departure from Vladivostok to the Governor-General's daughter. On another occasion our steamer was

delayed a whole day to give the chief veterinary surgeon of Russia time to transact his business; this time we were under obligations to the same government for gaining three valuable days, hence we ought to make no further complaint against Russian government officials interfering with schedule time and find consolation in:

This is the highest advantage to be derived by a monarch, that his people are obliged not only to submit to, but to praise the deeds of their monarch.—Seneca.

We found our steamer very comfortable, the table fair, and for the first time in more than four weeks could dispense with our own bedding and towels. On our way we passed very near the rugged mountainous islands of Tsu Shima and Matsu Shima, sparsely settled by fishermen. Toward the latter part of the voyage the speed was lessened for the purpose of not making the harbor before morning. At daylight Saturday, September 2d, the islands doing guard duty for the west coast of Japan came in sight and at nine o'clock the anchor was lowered in the harbor of Nagasaki. On entering the harbor we caught sight of the stars and stripes floating over the United States Army transport "Grant," a sight which can never fail to arouse the patriotic feelings of every American, more especially when it is seen in a distant foreign harbor. On coming near this immense vessel we saw the decks swarming with our soldiers dressed in khaki uniforms and wearing the familiar campaign hat. Later we saw a single long file of soldiers in jinrikishas doing the city in genuine Japanese style.

As soon as our ship cast anchor it was surrounded by a swarm of sampans, managed by half-naked Japanese, eager for patronage. A representative of the Nagasaki Hotel came on board and took charge

of our baggage, and in less than an hour we were in comfortable rooms of this excellent modern hotel conducted on the American plan. The only thing that made trouble in the custom-house was a box of cigars, the contents of which were improved by paying two yens into the treasury of the Mikado.

Nagasaki is a good representation of new Japan. The modern Japanese men-of-war in the harbor, the excellent hotels, the efficient police service, the macadamized streets, the good postal service are convincing evidences of what civilization has done for this island country. The people are wide-awake and show a commendable spirit of enterprise from the merchant princes and wealthy bankers down to the humble jinrikisha men. Many of the foreigners and wealthy citizens live in luxurious homes.

What attracts the attention of the stranger most when he comes for the first time to this fairy land is the vehicle in most common use, the jinrikisha and man-horse in front of it. I was told that this man-carriage is the invention of a missionary, and is certainly a great improvement over the clumsy sedan chair which it has entirely displaced. The little carriages look more like a large baby wagon than a conveyance for grown-up people. They are little two-wheeled carts with a top for protection against rain and the heat of the sun. The seat is as large as an ordinary chair. The man takes his place between the shafts, which he grasps with his hands and upon which the necessary traction is made. The jinrikisha men are happy in their humble station of life and their services are so satisfactory as to exclude largely from Japan the horse and the automobile.

The essential qualities of these men are good lungs and powerful muscles. When hard at work they are



NAGASAKI HARBOR.

half-naked and the powerful muscles of the fatless legs are as well outlined as in any specimen in the dissecting room. Their head-dress is well adapted for their special work. It consists of a light metallic framework, which fits the head and serves as a support for the concavo-convex round canvas roof. The gait of the jinrikisha men is a slow, graceful trot, and in comparing speed they would not remain far behind the horse. I do not know how others have felt when they took the first jinrikisha ride, but I am free to confess that I faced the ordeal with considerable hesitation.

It appeared to me like an inexcusable imposition to be drawn by a fellowman. During the first trial I considered it to be my humane duty to make myself as light as possible. It was an effort on my part, but I failed to see that it had any perceptible effect on my man-horse, and consequently I abandoned my attempts at co-operation, and the man showed no signs that he fared any worse. When you once become used to it, jinrikisha riding is made a genuine pleasure, and the enjoyment becomes the greater when the man-horse has reason to look forward to an extra compensation. The power of money in managing the world's affairs is well known, but a handsome tip for the jinrikisha man does wonders when he is given an opportunity to serve you again; his eyes are made brighter, his muscles quicker, and his smiles continuous. Ten cents an hour for such work is not much, and if you will double the fee you will have no reason to regret your liberality.

Mogi is a fishermen's village on a bay some six miles distant from Nagasaki. The road crosses a mountain at least 2,000 feet high through well-cultivated rice fields and vegetable gardens. The steep mountains around Nagasaki are cultivated almost to their summits by terracing the land with solid stone

walls only a short distance apart. The rice fields between these walls are often not wider than a good-sized room and are well irrigated by deviating little mountain streams in different directions. To prepare an acre of land for the farmer's use must have cost an enormous amount of labor, but soil in Japan is scarce and labor is cheap. The rice fields appear like a patched quilt on the mountain side, the refreshing deep green of the rice furnishing the predominating color. Palms and bamboo, fig-trees and taro plants suggest that we have reached a subtropical climate.

The man-horse carefully estimates the weight of his prospective load. The man who weighs the most waits longest for his horse. This instinctive care on the part of the jinrikisha man is displayed most conspicuously when a long trip is laid out for him, and more especially when the trip includes a heavy grade.

It so happened that none of the party going to Mogi were featherweights, and yet when it came to engage our men the heaviest one was soon located and the man of iron muscles who confronted him and had left no other choice shook his head and made hand movements suggestive of the length of the belt of the man who had made himself comfortable in his vehicle. As the trip to Mogi included a long and very heavy grade, it became necessary for each passenger to engage three men, one between the shafts and two behind the carriage, combining traction and pushing. We made the start about two o'clock in the afternoon. The sun was hot, the atmosphere calm and saturated with moisture.

It was a hard day for man and beast. Our men started off on their accustomed trot, whirled us through the crowded streets and still more crowded market, shouting and yelling to avoid collisions with other



JINRIKISHA RIDE.

jinrikishas, men, women, children, and dogs. It was on this occasion, perhaps more than on any other, that we were indeed making a race against the sun. As soon as the base of the mountain was reached the speed slackened to a rapid walk, the men were sweating, panting and puffing and jabbering good-naturedly with each other, jesting and laughing at each other, and I have no doubt that much of their merriment was meant for their passengers, who were having their first experience with this kind of travel. On they went, higher and higher we climbed without any marked evidence of fatigue of our pulling and pushing men-horses until we reached the summit of the mountain. A number of tea-houses with open doors and smiling and bowing hosts and hostesses were in readiness to extend their hospitality to the transient guests. Tea was served, our men rested, and we occupied the time by exchanging a few yens for photographs and Japanese trinkets.

The Japanese street merchant is a sharp business man, and nothing pleases him more than to inflict his wares upon the unsuspecting stranger at the price asked for. The American is not in the habit of questioning the honesty of the merchant in making his purchases; he pays the price asked, and concludes his bargain. This would not do in the little shops and on the streets in Japan. One of my friends wanted to buy an umbrella for which the street vender asked two yens. He was shown a bright, shining new yen; he shook his head seriously in disapproval of such a transaction. We walked on, followed by the umbrella seller, who then lightened his burden and added a yen to his small collection of coins in his greasy bag. The small Japanese merchants have all kinds of prices, and the tourist pays dearly for his experience in dealing with

them. The descent from the mountain on the Mogi side was made quickly.

All our men had to do was to direct their jinrikisha and keep it from running off its track into the muddy taro patches and well-irrigated rice fields. The men behind the jinrikisha aided the leader in regulating its speed by pulling on ropes fastened to its axle. We passed a number of fine bamboo fields and patches of cypress trees. The wild flowers have been almost completely exterminated by the busy hand of man eager to use for his purpose every available handful of arable soil. Mogi is a large village located on a wide bay inhabited almost exclusively by fishermen and their families. The water was at low ebb and hundreds of fishing boats were resting on the soft mud, waiting for the tide.

Naked children, half-naked men, and scantily-dressed women were crowding the narrow streets and little shops. A large tea-house in full view of the ocean takes care of the few strangers who visit this typical Japanese fishermen's village. Behind the tea-house and near the sea-wall is a little shrine, where formerly the fishermen were in the habit of easing their conscience by worshiping the ugly weather-beaten idol of stone. The path leading to this place of pagan worship, worn deep by the feet of the faithful of centuries ago, is now grown over with grass and weeds, showing to what extent the religious feelings of the community have been influenced by modern civilization.

The ride back to Nagasaki after sundown was a memorable one. The full, pale-faced, cool moon took the place of the fiery, burning sun. The merry groups of men, women, and children hurrying to and from the city, the moonlit landscapes, the thousands of street lamps, and the hundreds of lights of the ships



RAILWAY STATION, NAGASAKI

in the distance were sights not often witnessed in such combinations. We returned to the city fully impressed with all we had seen during the day of this little but important corner of the island empire. Nagasaki is a great seaport town. Its long, narrow, land-locked harbor is the central point of Oriental navigation. It is the objective point of all battleships in Oriental waters of all seafaring civilized nations. The merchant marine vessels of all countries seek its shelter and unload and reload their cargoes there.

Nagasaki has a large floating population, representing all of the important countries, coming and going with the hundreds of incoming and outgoing ships that visit its harbor annually. The medical inspection of the incoming ships is an unnecessarily lengthy one. The ship we came on from Vladivostok was boarded by four medical officers. All of the third-class passengers and ship's crew were inspected individually. They were collected in groups and in many cases this inspection included feeling of the pulse and looking at the tongue. The ship had its own medical officer, who had three days in which to do all this, but evidently his testimony was not regarded as final by the Japanese guardians of public health. In the harbor we found anchored a magnificent German steamer flying the red cross from its topmast. This steamer, the "Crefeld," is being fitted up as a hospital for the German troops and sailors in this part of the world. This is an excellent way in which to make provision for the sick and wounded, and is an example worthy of imitation by other nations sending troops to tropical and subtropical countries.

The Nagasaki General Hospital takes care of the resident and transient sick, and patients who are able to pay for more luxurious accommodations will find

them at the only private hospital in the city, conducted by Dr. Bowen, an English physician. The former has a capacity of over 200 beds; the latter fifty.

There are two things connected with hotel life in this city and other Japanese and Chinese cities that deserve mention. The modern hotels are all conducted on the American plan. At the Nagasaki Hotel a charge of eight yens per day is made, and this charge is the same regardless of the location and size of the room occupied. A large front room on the second floor luxuriously furnished brings the same price as a small back room on the third floor scantily furnished.

The second unusual thing is the charge for washing. Washing is charged for by the piece. The washing of a collar or a five-cent handkerchief costs just as much as the washing of a linen coat or a ruffled shirt. This somewhat unusual procedure would suggest to the traveler the wisdom of supplying himself with cheap collars, handkerchiefs, and socks, as it is cheaper to buy these articles than to have them sent to the Chinese laundry, from which they never escape without being thoroughly sprinkled with the saliva of the Celestial artists.



MOUNTED EAST INDIAN POLICEMAN, SHANGHAI.

CHAPTER XIII.

CHANGE OF ROUTE—NAGASAKI TO SHANGHAI—THE "YARRA" AND ITS PASSENGERS—THE GREAT YELLOW RIVER—A LUNAR RAINBOW—SHANGHAI—THE CITY AND ITS INHABITANTS—THE NATIVE PHYSICIANS—DR. MACLEOD ON MEDICINE IN SHANGHAI—THE GENERAL HOSPITAL—THE SISTERS OF CHARITY AND THEIR WORK—A PAGODA—BEGGARS AND PRIESTS—PRISONS AND PUNISHMENT—CHINESE LABORERS—THE RETURN TO JAPAN.

*Old times have gone, old manners changed,
And a stranger sits upon the Stuarts' throne.—Pope.*

OUR original itinerary included a visit to Korea. From Vladivostok a Japanese steamer connects with the Korean ports on the west coast of the peninsula only once every month. This steamer we had in view we missed only by a few hours. This mishap came to us as a great disappointment, as we had lost the only chance to see and study the hermit nation, and we were inclined to say:

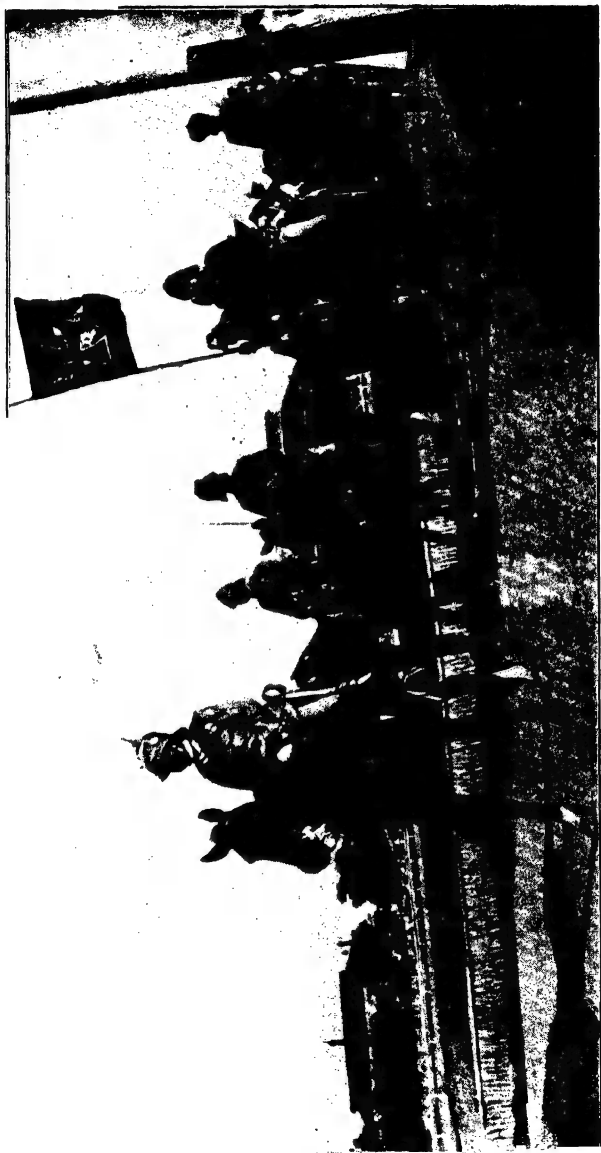
*Upon my word, this day certainly has turned out
both perverse and adverse for me.—Plautus.*

We had to choose between two evils—either to wait for the next steamer or proceed to Nagasaki, and we decided in favor of the latter. This change in our program gave us more time, and after we completed our Nagasaki visit we decided to make a side trip to Shanghai. As the result of this deviation of our tour showed later, we had reason to be grateful for what we at first regarded as a keen disappointment, in cutting out from our itinerary Korea. We were informed by a gentleman who has seen a good deal of China that

at Shanghai we would be able to see China in its entirety, and our trip to that interesting and historic city certainly went to corroborate in the main the correctness of that statement. Shanghai as we found it is the Shanghai of a thousand years ago modified by European influences; it represents Oriental civilization tinted by Western civilization, but has not become radically changed.

On landing at Shanghai the visitor is at once made aware that "a stranger sits upon the Stuarts' throne" by the many palatial, modern buildings, modern hotels, club houses, the presence of military men representing six of the most powerful nations of the world, the excellent police system, the numerous charitable institutions, and the many battleships in its harbor of nearly every large government of the globe. The settlements of the foreigners, with the exception of the French, combined into a general and well-managed government, give the city a truly European aspect. The flags freely displayed by the nations that have gained a foothold on the Celestial empire and the conspicuous absence of the emblem of the oldest empire in the world, leave no doubt in the mind of the visitor that the dragon has lost its control over this part of China.

A regiment of Indian troops in the English settlement, the drilling of Japanese troops on the bank of the Whangpoo, the giant Indian policemen on every street corner, the English street signs, the many battleships in the harbor flying the flag of nearly all civilized nations, will be enough to prove that this part of China is and will always remain under the control of foreign powers. On the other hand, Shanghai has enough to prove that in spite of the presence of the most potent civilizing influences the great mass of



GENERAL VON WALDERSEE, COMMANDER OF THE ALLIED FORCES, ON HIS WAY TO THE
PARADE AT SHANGHAI.

its population has not been touched by the spirit of Christianity and progress. Inside of the ancient walls of the city live a million or more of souls in the same way as their ancestors did more than a thousand years ago. It is here that the stranger has an opportunity to study the life and ways of the Chinese. It is here that he will fail to find any evidences of the civilizing influence of the extramural population. It is here that the churches and schoolhouses, the most potent agencies of civilization, are absent. It is here that the natives live, toil, and die the same as their forefathers centuries ago. It is here that the pagan priests remain undisturbed in their ministrations to the superstitious, clouded minds of the only nominal Chinese citizens.

The intramural enormous population, however, is a small factor in the affairs of the city, as the foreign settlements are so well organized and in sufficient power to yield the necessary influence to insure good government and to pave slowly the way to progress which eventually cannot fail to penetrate the ancient walls and take possession of its enormous population.

We left Nagasaki Sunday, September 1st, at 10 a. m. on the French steamer "Yarra." The heat at Nagasaki was made very oppressive by the excessive atmospheric moisture, and it was with a sense of coming relief that we boarded the steamer. The "Yarra" is an old but most comfortable steamer belonging to the great Messageries Maritime Company. It must have been built at a time when steamship companies had a soul as well as a desire to make money, as everything in its construction has been made for the comfort of passengers. The cabins are larger than in any other ship I have ever seen, the washrooms scrupulously clean and odorless, the dining-room comfortable and

well ventilated, the kitchen and service above criticism, and the officers from the captain down to the cabin stewards well trained, courteous, and obliging. As compared with the great ocean steamers with their cell-like rooms, great crowds, and chemical kitchens, it must be regarded a pleasure to travel on such a ship.

The "Yarra" had on board 250 French marines and their officers, who had seen service in Oriental waters for a year, and were on their homeward journey. Both men and officers showed indications of hard wear and tear. A more checkered lot of men it would be difficult to find. All were sunburned, pale, and emaciated. The officers were in first-class cabins, the privates and non-commissioned officers occupied the forecabin. The well-worn uniforms would have made a poor showing at a parade or review. The variety of hats and caps worn by the privates was somewhat surprising. Blue and white helmets, caps of all kinds of patterns and colors imparted to the deck space occupied by the soldiers a varied appearance, particularly when the men were in motion. It was a quiet, sober, orderly crowd. The officers spent most of their time on deck in walking by twos in quiet conversation. The men had become hardened in their service, as at all times by day and by night they could be seen arranged in rows soundly asleep on the deck, lying on a ragged, thin blanket without pillow and without cover. They were veterans who were looking forward cheerfully and hopefully to the better times that awaited them at home after a prolonged service for the country they served so well in protecting its Oriental interests.

As we left the harbor of Nagasaki and passed the last islands that protect the Japanese coast at this

we passed the Yoto Islands to the right of us toward evening. The next day long, heavy swells rocked and pitched our good ship sufficiently to unsettle many stomachs, and lightened the labors of the cook and reduced the demands on the stores of provisions to a minimum. At dinner time it became necessary to cover the tables with the familiar storm frames to prevent destruction of the fine tableware and breakage of the wine bottles so freely distributed for use without extra expense to the diners.

Late in the afternoon the Saddle Islands near the Chinese coast were sighted to the left, and about the same time it was observed that the dark blue color of the water was changed into a dirty green color, and a short distance farther and rather abruptly the greenish hue gave way to a brownish-yellow color, the color of the water of the Yang-tse-Kiang River. This yellow color of the salt water extends from forty to sixty miles beyond the mouth of this mighty river, and it is hard to tell where the river ends and the ocean begins. China cannot be seen from any distance, as the shore is very low, almost on a level with the ocean. Numerous fishing junks on the yellow water gave us timely intimation to look for the mainland. The Yang-tse-Kiang where it pours its dirty yellow water into the ocean is so wide that for some distance land is out of sight on both sides.

We entered the river just at the right time of day. The sun was nearly ready to retire for the night. A gigantic bank of fleecy clouds to the left looked like gigantic snow-capped mountains. The sun itself shone at the very margin of the horizon like an orb of the yellowest gold, its reflection on the rippling water of the river outlined by a pathway of the color and brightness of the purest silver. As the sun hid its

face, the clouds lost their bridal veil and were soon wrapped in mourning, and as they donned the dismal garb, appeared to recede from us until they almost disappeared from view in the distance. As we slowly ascended the immense river, it occurred to me that this great body of fresh water represented many of the characteristic features of the nation it has served so well and which from time to time it has punished so severely when it so suddenly grew in size and had no longer room in its legitimate capacious bed.

Ordinarily this river is peaceful, its current sluggish, extremely conservative, full of adoration for the doings of the past, but when it loses its patience, it knows neither law nor order, and leaves its well-beaten path, and, like the fury of a mob, it destroys and kills what comes within its reach in its erratic course. Its very color is significant, as it stains itself at the expense of the soil of China and carries it to places where it is of no more use than a gold coin thrown into the depth of the ocean. It is serene when it has its own way, but is aroused to anger when touched by the pregnant clouds. It is patient and fully satisfied with the path it selected when born, and has shown no inclination either to shorten or to lengthen its course. It is a stranger to progress and is more annoyed than pleased if a modern vessel disturbs the quietude of its dirty, rippling surface. It hates wheels and screws, but smiles at the keels of the Chinese junks which have undergone no change for thousands of years. In short, it is as stubborn, as devoted to tradition, and as treacherous as the people who gave it its euphonic name. The Chinese shore was first discovered in the form of a fringe of green which became larger and larger until we could identify rows of willow trees on both sides of the river. It seemed as though the river-



THE CHINESE WHEELBARROW.

bed was brimful, ready to overflow the lowlands by adding a dipperful of water.

As we came nearer the shore, the number of Chinese junks at anchor increased to a veritable fleet. All were manned by from two to six Chinamen engaged in fishing. Fishing as practiced here is a trade, not a sport. The water is too dirty for the angler. The fish living here have but very little use for their prodigious eyes. The fishing is done by the use of a large square dip-net, which is lowered and raised by a long pole resting on a horizontal beam. As the net is raised, the fisherman keeps his eyes on the little pool in the center of the net, and if it contains any fish they are dipped out with a small net attached to a long bamboo pole. The work must be monotonous and not very remunerative, considering the number of times the net is drawn to the surface empty and the low cash price for fish.

Late in the evening we anchored off Woosung, a large village at the junction of the Whangpoo with the Yang-tse-Kiang. The tender arrived too late to make the river trip to Shanghai. That evening we were privileged to observe a phenomenon seldom witnessed even by sailors who live on the sea for a lifetime. It was a night rainbow about an hour before midnight. The clouds in the west were illuminated by the full moon rising in the east. A complete faint rainbow formed, representing in a feeble way all of the colors of the sun rainbow. The captain of our ship, who had seen thirty years of service on the sea, said he had never seen a night rainbow, and when first informed doubted the correctness of the observation until he had seen it with his own eyes.

We landed at Shanghai Tuesday, September 3d, at 8:50 a. m., having made the river trip from Woosung

since sunrise. The Whangpoo River serving as a harbor for Shanghai, resembles in color and behavior the Yang-tse-Kiang, which it enters near its ocean terminal. Nothing except the innumerable sampans and junks manned by Chinese reminded us that we were at the gate of a great Chinese city.

The Chinese junk is a strange antiquated craft with two enormous eyes at the stern signifying the wisdom of the primeval ship in finding its proper and safe course, in avoiding collisions, and in traveling safely over the trackless sea. The sampan bears a great resemblance to its larger sister, the junk, and is propelled by the powerful Chinese boatmen in the same way as in centuries gone by, by sculling. The oar for this purpose is a peculiar one. It consists of two oars, a short and a long one, firmly tied together and fastened to the rear end of the boat by a ball and socket joint. The short part of the oar is worked laterally by the boatman and the long end makes movements like the tail of a fish, and these movements propel the boat. This double oar is far superior to the single oar in general use in our country, requiring much less muscular exertion, as well as regulating the movements of the boat with greater ease and precision. The landing was made in the European part of the city, on the Bund, a great thoroughfare following the course of the river front. A strange, confusing sight presented itself as we stepped on shore. An army of jinrikisha and wheelbarrow men were anxious to wait on us.

The Chinese jinrikisha is the same as the one in Japan, but those we found here are somewhat more clumsy, more especially the shafts, a change probably due to a general demand to bring the price of this two-wheeled man-wagon within reach of the Chinese man-horse. The Chinese jinrikisha man is much taller and

stronger than his colleague in Japan, but makes no better time and certainly shows no greater endurance and pluck. The headgear of the Chinese substitute for the horse is even more simple and practical than the one worn by the same class of men in Japan. The framework fitting the irregular head is made of bamboo strips wrapped in light cloth, and the head protection fastened to it is a very low-crowned straw roof painted brown. Some of these men go barefoot, others wear the cheap straw sandals. A blue blouse of cotton cloth and a breech-cloth complete the wearing apparel.

The Chinese wheelbarrow antedates the jinrikisha by thousands of years. It was undoubtedly the first wheeled vehicle invented by man. The wheelbarrow now in use has undergone no modifications or improvements for ages. The wheel consists of an immense solid disc of wood made more durable by binding it with a belt of the toughest kind of wood. The sides of the wheel above the two triangular seats are framed in. The great freight wagon in China is the wheelbarrow. At present it is not considered in good taste for a foreigner to ride on a wheelbarrow in the streets of Shanghai. It is, however, in constant use by the lower and poor classes of Chinese as a substitute for the stylish and more expensive jinrikisha. The fare is so cheap that even the poorest women will be wheeled to and from the market. For me this vehicle had a special attraction.

I had no desire to violate in any way the proprieties of the European part of the city, but a wheelbarrow ride was a prominent part of my program in coming to Shanghai. I selected an opportune moment when near the outskirts of the walled city. One of my colleagues experienced the same desire. We beck-

oned a wheelman of enormous proportions in charge of a barrow that evidently had been handed down for active service through many generations. We found some difficulty in seating ourselves properly, that is, in supporting one foot upon a side rope and the other upon the platform, but once in position the ride commenced in earnest. Spectators gathered in alarming numbers. The man behind the wheel took in the situation correctly and felt that he for once in his life had been given an opportunity to make a well-deserved reputation and a chance to fill his pockets with a hatful of cash.

Unfortunately we had chosen the wrong street for our first experience as wheelbarrow passengers. The street was paved with cobblestones. We were going at full speed, and the violent jolting and jarring and many hard knocks against the framework over the wheel soon told on our sensitive brains and irritable retina. Dizziness is the first symptom of the *mal de wheelbarrow*. As the enormous wheel hopped over the round stones it seemed to produce a diminutive flash of lightning before my eyes. The crowd of Chinamen that formed the large procession all around and far behind us jabbered and grinned whenever the calmness of our faces was disturbed by the crazy behavior of that single-wheeled, springless vehicle as it shot over the rough surface.

Our ride was not a long one, when we motioned to our sweating Chinaman to come to a standstill. We had our experience and we made him happy for the balance of his lifetime by handing him the largest silver coin he ever saw, the sight of which made his eyes protrude beyond the level of their sockets simultaneously with the broadest smile that ever lit up the broad, flat face of the astonished, appreciative wheel-

barrow man. That happy Chinaman will never forget that day; neither will his passengers, who were enriched by a new and novel experience.

The river street of Shanghai, the Bund, is a broad boulevard on which the principal hotels, banks, and club houses are located. From here the harbor is in full view with its many battleships and merchant marine vessels from all parts of the world, and hundreds of one-masted Chinese junks. It presents a scene of great activity, the water in front of it is constantly kept in motion by the passage of all kinds of craft by night and by day, and the air is made to vibrate by steam whistles of all sizes and with a great variety of voices from the hoarse, hollow, thunder-like peals of the great ocean steamers to the fine bark and feeble screech of the small steam and naphtha launches that come and go noiselessly from ship to ship and shore to shore.

The loading and unloading of vessels is the exclusive work of the Chinese, who, half-naked, do their hard work with dexterity and precision, keeping time by their monotonous, extemporized songs. From the charming little park on the bank of the river, the busy scenes in the harbor can be seen on one side, and on the other the stream of humanity on foot and all kinds of vehicles, representing, as it does, all nations engaged in business with the outside world. Men and women—yes, whole families—on a single wheelbarrow, wheelbarrows heavily loaded with freight, files of jinrikishas, stately carriages with gaudily-dressed drivers and footmen, English carts and small victorias moving in both directions and crowding their way through a seething mass, make a picture that when first looked at makes the head dizzy without causing a definite impression, so confusing is the scene as a whole.

What attracted my attention first on landing on Chinese soil were the East Indian policemen standing on the street corners, preserving order. These men are splendid specimens of East Indians. All of them are about six feet or over in height, straight as an arrow, and well proportioned, dark complexion, and jet black hair and beards. They trim the beard in a very peculiar way, curling the hair in a mass upward and inward all around. They must take much time and patience to train such a strong, manly beard in such a decidedly novel manner. These men are in khaki uniforms and wear a massive turban in various colors. They are not armed, but when they raise their powerful hands, either in the way of suggestion or in the form of a command, the person so addressed invariably does their bidding.

The native policemen wear a very pretty, plain uniform and perform their public duty with a tact and dignity that make them the equals of their foreign colleagues. Within the walled part of the city the necessary police control is in the hands of natives.

We made the Astor Hotel our home and enjoyed its capacious rooms, excellent service, and superb kitchen. We in Chicago are proud of our famous hotels, but none of them could possibly do as much for its guests as the Astor House. The rooms are large enough for a whole family, are well furnished, and to each of them a bathroom is attached. The Chinese chamberman never tires in being of service to the patrons assigned to him. In the evening he prepares the bed for you and early in the morning he enters the room noiselessly and attends to the boots and clothing. Little errands are executed with the promptness of the clock, and above everything else he is absolutely beyond the temptation of appropriating anything

belonging to the guests. I intentionally left a handful of silver coins on my table for three days during my stay in Shanghai, and found it undisturbed when I left. The dining-room service is entirely in the hands of intelligent and obliging Chinese waiters. These long-gowned, graceful waiters are quite in contrast with our surly, bungling negro waiters, and have no set tip price in serving you, as is the case in most restaurants and large hotels in our country. Fifty thousand Chinese waiters in our country would revolutionize the chamber and dining-room service in our large restaurants and first-class hotels.

A regiment of Indian troops marching through the streets of Shanghai attracted a good deal of attention. The soldiers are in the English service, and came here a year ago to assist the English government in quelling the then existing disturbances. It was a splendid body of men, well trained, and uniformed in khaki suits, and armed with modern guns of small caliber. I saw in the rear of the command a somewhat novel ambulance, in the form of a cot suspended from a strong bamboo pole carried upon the shoulders of two soldiers. This manner of carrying a sick or wounded soldier excludes all possibility of jarring and commends itself very strongly to emergency work in peace and in war.

The foreign population of Shanghai is from 6,000 to 7,000; the remainder are nearly all Chinese. I saw but very few Japanese and Koreans. Although I made frequent inquiries concerning the number of inhabitants in the intramural part of the city of parties who had lived in Shanghai for many years, none of them pretended to know the exact number. The estimates varied from 400,000 to over 2,000,000.

I can readily understand the difficulties encountered

by the census taker in this section of the city. The whole intramural part of the city is one great beehive of humanity and some portions are of very difficult access, and the class of Chinese living there are averse to all such procedures. Any attempts of this kind meet at once with an objection based on superstition and mistrust. The wall is a very old one, and a few feet from it is a moat which has become a filthy mire, as it serves as a dumping place for everything that cannot be more readily disposed of. Four principal gates lead into the city, all of which are closed every evening at ten o'clock.

The walls are built of brick and are wide enough on the top for a comfortable promenade. Years ago this wall was relied upon as a means of defense and the watch towers remain in a good state of preservation. All of the streets are paved with cobblestones, but none are wide enough even for the passage of a jinrikisha. The only vehicles in use are the wheelbarrow and the sedan chair.

The city is intersected at short intervals by narrow passages which serve the purpose of streets and sidewalks. Into these passages the small shops open. From early morning until far into the night these dark passageways swarm with people, and the habitations serving as workshops and little stores are always crowded. All trades are represented—carpenters, blacksmiths, shoemakers, saddlers, tailors, silversmiths, watchmakers, silk weavers, all are busy as bees and do their work with the most primitive tools.

Boys and girls not more than ten years of age may be seen in many of the shops doing the work of men and women. As there are no schools it may be as well to give them employment as to let them roam about the dirty, noisy streets. A Chinese house here means



TEA-HOUSE 600 YEARS OLD IN INTRA-MURAL SHANGHAI

a little shop in front opening on the street, from where all the light is obtained, and either in the shop itself or the part behind it is the place to sleep and cook the simple meal. Those that can afford the small luxury of a mat to sleep upon do so; others in more straitened circumstances sleep on the bare ground.

Housekeeping in intramural Shanghai does not cost much, and the matter of expense should not be in the way of any young healthy Chinaman undertaking it. A five-dollar bill to these people would be considered a large investment for a start in life. It would more than pay for a good-sized mat, a charcoal stove, a teapot, a few blankets, a basketful of charcoal, and a peck of rice. The articles mentioned above are a little more than can be found in the average Chinaman's house within the walls of the city. In some places we found long, dark passageways behind the shops, opening into a filthy court, all densely populated. How these people live and often reach old age must remain a mystery to the sanitarian. Many of these people have never been outside of the walls, much less in the free, open country. They die where they are born, having seen only occasionally glimpses of the sun, moon, and stars. The whole city appears to be more under ground than above ground.

It is in this part of the city that business is done on the smallest scale, and it is only here and in the market where cash money changes hands. This old brass coin with a square central perforation has very little purchasing value. I wanted some of this money, but could not find it in any of the banks. I had no difficulty in getting it in the intramural city. At the old tea-house I asked the guide to exchange a Mexican half dollar for it, and when he handed me the cash, I had the greatest difficulty in storing it away in

several of my capacious pockets. The beggars even despise the cash money. One of our party attempted to satisfy a begging priest with a number of these coins, but he returned them indignantly.

It is a trying task to see this part of Shanghai as it should be seen. Filth and a foul odor meet the visitor at every turn. Strangers are not often seen here, and their presence always excites curiosity. Wherever we went a large chattering delegation was always in attendance, crowding the narrow streets still more. It was often difficult to proceed, more especially when a wheelbarrow or a sedan chair with their noisy motors met or passed us. The old tea-house was built 500 years ago. It is located on a little island and several zigzag bridges lead to it, over a little pond covered with a green scum of algæ. Its architecture is typically Chinese. It is always crowded by Chinamen, smoking and drinking tea.

China has no educated native physicians. Four hundred million people are without proper medical care, with the exception of what is done for them by foreigners. The men who pretend to treat illness are ignorant, and their success, if any, is entirely due to the recuperative capacity of their patients. Quackery is rampant all over China, and is patronized by all classes from the highest to the lowest. During my wanderings in the intramural part of Shanghai I had an opportunity to witness some of the deceptions practiced upon those who were in need of medical services.

In one of the few open places a large number of people had gathered in the form of a circle, all craning their necks to see something that was going on in the center. I elbowed my way through the dense mass to the front row and there witnessed a scene by no means unknown in our country. An elderly gentle-

man, dressed in a flowing blue silk gown, was squatting behind a large basin filled with human teeth in all stages of disease, and some of them looked so well that it seemed strange any one would part with them. The owner of the dead teeth was talking and gesticulating to the bystanders, and our guide, who understood his language, said that he was relating his skill in painlessly removing aching teeth. It was the same old story so often told by traveling tooth carpenters at the street corners or in some cheap hall in our large cities. I only regretted that during the short time I could devote to this point of attraction he did not succeed in finding any one with a toothache severe enough or with sufficient courage to give him a chance to make a practical demonstration of his skill.

It is not difficult to find a large audience in any part of Chinatown. Less than a block away from the eloquent dentist I found a typical Chinese doctor discussing his skill in treating with success all kinds of disease. His whole faith in the treatment of disease was pinned to a root which had very much the shape and color of ginger. In a small dirty dish was a red fluid, into which slices of the root were dipped. It required no interpreter to know what this doctor was telling his audience. With this root properly stained and applied to the aching spot, pain would disappear at once, and for a very small consideration the remedy could be obtained there and then. Not far from this healer of all diseases with a single, probably absolutely inert, remedy, was a genuine herb doctor. He was in a squatting position, surrounded by bundles of various kinds of herbs, and in front of him was a small mat, upon which a number of cash coins had accumulated during the afternoon. This was evidently a very cheap doctor, but he had at least

more than one remedy with which to dupe his gullible countrymen.

As I was making these observations a sudden lull occurred in the chattering and jabbering of the crowd, who were being so earnestly instructed in the management of all kinds of diseases. This sudden silence was caused by the approach of an elegant sedan chair carried by two gaudily-dressed coolies. In this chair sat very comfortably a richly-dressed Chinaman, wearing a beard trimmed *a la Li Hung Chang*. I was informed that the passenger in this chair was one of the many great Chinese doctors. These fashionable Chinese doctors represent the worst class of native doctors, not because they know less than their more humble colleagues, but because they have the impudence to charge their patients from two to four dollars a visit. If the patient happens to be a wealthy one it is considered necessary to make the visits very frequently. These rascals in the garb of doctors feed like leeches upon the flesh and blood of their wealthy patients, while they never pretend to do anything for those who are unable to pay they exorbitant price. I saw this class of doctors quite frequently while rambling through the Chinese quarters of the city, and they were invariably making their rounds in a luxurious sedan chair.

For many reasons the sedan chair has been made almost obsolete by the jinrikisha, but it is a very comfortable vehicle, as I can state from personal experience. I was very anxious to give this aristocratic vehicle a trial, and did so, not in the Bund, where it is seldom, if ever, seen, but in the neighborhood of the walled city. The swinging movements of the chair are very agreeable, and by drawing down the curtains a degree of privacy can be enjoyed which is entirely out

of question in using its successful competitor, the jinrikisha.

What China needs as much as anything else at the present time is a great modern medical school where native students can be educated in medicine and surgery. Well-trained and well-educated native doctors can accomplish much more with this superstitious, suspicious race than foreigners. With the awakening of China such an institution will be born and will contribute its share toward the civilization of the nation.

During our brief stay in Shanghai I had the pleasure of meeting Dr. N. Macleod, the most prominent foreign physician in the city. He entertained our little party at dinner in his palatial home on the bank of the Whangpoo. I utilized this opportunity to gain some reliable information regarding medical matters in Shanghai. Dr. Macleod has been a resident of this city since his graduation from the University of Edinburgh twenty-three years ago. He has always taken an active interest in public affairs, and has had a very extensive practice in medicine and surgery. I addressed to him many questions, all of which he answered in such a way that it was evident he had been an accurate observer and diligent student since he made this distant city his home.

He was kind enough to put some of his views in writing, and it affords me much pleasure to reproduce his letter, which he handed me on my departure from the city:

SHANGHAI, SEPT. 6, 1901.

DEAR DR. SENN:—With this I hope to enclose a specimen of Chinese ideas of anatomy in relation to regions that may be acupunctured safely. Your request last evening for a sketch of Shanghai medicine rather scattered my wits. Herewith a few of the facts stated succinctly: Our Chinese neighbors, having

no surgery, have taken to the foreign article with avidity. Tumors of various kinds, often of enormous size, are common. Curiously enough abdominal ones are comparatively rarely brought to us. They do occur, but I suppose they are still regarded as belonging to the medical domain and so are not sent to the surgeon.

Injuries of every description from machinery, opium suicides, filth diseases of every description, skin and eye especially, are to be met with at our hospital. Surgical shock is rarer than with Europeans, and our anxiety during chloroform anesthesia is scarcely ever experienced here. Several years' experience of both chloroform and ether with foreigners has led to preference for ether, with which I have had no anxiety—a great contrast to my chloroform experience (no deaths). I may say I hail from the chloroform school *par excellence*, Edinburgh. In Shanghai there has been a municipal health officer for thirty years.

Five years ago one was appointed solely for public work, after bacteriological diagnosis was inaugurated and calf lymph began to be manufactured. We supply mid and north China therewith—Chinese and foreigners. Three years ago a Pasteur prophylactic laboratory was started for hydrophobia. Twenty-six years ago a lock hospital was opened for weekly examination and treatment of Chinese prostitutes, and a year ago it was incorporated with the new isolation hospital for Chinese. An isolation hospital and lunatic asylum are to be shortly built for foreigners. These are all municipal institutions. There is municipal supervision of laundries, dairies, and cattle, butcher, fish, and game shops, and there is a public slaughter house, killing prohibited elsewhere. All night soil is carried away daily and used for manure *a la Chinoise*. Some of it unfortunately comes back to our market produce, and in our kitchen, gets the opportunity by means of flies and otherwise of tainting cakes, dish-cloths, dishes, and cooked foods, probably accounting for the large proportion of alimentary canal troubles which prevail and no small share of enteric fevers.

The General Hospital, 130 odd beds with isolation

block, is self-supporting, and has existed thirty years. Three Chinese hospitals, two being missionary, one (the oldest, over forty years) being supported by voluntary contributions and having eighty-four beds, is staffed by us civilians and Chinese house surgeons. A pupil of Lister, I had the honor of introducing aseptic surgery in 1877, when I believe the first liver abscess was opened and drained with the Listerian precautions of that time, displacing aspiration, which was the then practice. The chief diseases are those of the alimentary canal, enteric, benign malarial. Tertian is endemic; other malarial fevers are imported. Beri beri (amongst Chinese) crops up every year in the late summer and autumn, as did cholera with the regularity of a clock until five years ago, since when we have had a second exception. Starting in July—more often in August—it lasts from one to three months, and attacks but few resident foreigners. Croupous pneumonia I never saw in Shanghai until 1892, when it followed in the train of the influenza epidemic.

A typical case of rheumatic fever—acute articular rheumatism—I have not seen. Scarlet fever was not met with till 1894, when introduced by an American family, since which time it has occurred each year. Tuberculosis is on the increase amongst the foreigners. Amongst Chinese it occurs not, I think, with the same prevalence as with us in England, but no statistics are obtainable. Most of the Chinese outposts are now in the position that Shanghai occupied fifty years ago for medical attendance. No doctor would settle unless a minimum income was guaranteed. This resulted in our annual contract system for individual, family, bank, house, etc.

The result has proved so satisfactory to both patient and doctor that the system prevails still in parts like Shanghai where the need for it no longer exists. A beneficial result is the practice of private, as distinguished from public, preventive medicine. A large part of my time is spent in dealing with the beginnings of disease and in advising about food, clothing, education, housing, etc.

The Chinese have their own physicians and only

apply for foreign aid when the former have failed them, usually *in articulo mortis*, sometimes after death. Foreign physic, therefore, does not receive the same reward that surgery does, and of course with chronic diseases especially, it is hopeless to try to convince most Chinamen that food, work, sleep, and recreation or rest have more to do with cure than medicine.

Yours very truly, N. MACLEOD.

The above letter gives an excellent bird's-eye view of medical matters as they now exist in Shanghai. It shows the necessity for scientific medicine in the vast empire that is now the seat of important political events. With the dawn of modern civilization in this country, the healing art will take an important position in the coming event.

The Shanghai General Hospital is the largest hospital in the city, and is intended exclusively for the treatment of resident and transient foreigners. It is in charge of the Sisters of Charity of Saint Vincent de Paul, and was founded in 1867. It can accommodate 130 patients. It is more than self-supporting, as last year the surplus amounted to 10,000 taels. When we speak of taels we mean Mexican dollars, as the tael does not exist. The Mexican dollars circulating in China are stamped and pass for taels. The building is a substantial two-story structure with ample grounds. The sick are in charge of seventeen Sisters, assisted by hired help, Chinese men and women. The ward patients pay what they can afford and receive medical treatment free of expense. A number of excellent private rooms are provided for patients who can afford to pay a dollar a day.

Everything about the institution is scrupulously clean, and the whole management does credit to the order the Sisters represent. One of the brightest



HOSPICE OF AGED WOMEN. VINCENTIAN CONVENT.

Sisters came from Emmitsburg, the mother house of the order in the United States. She came here five years ago on her special request, and while she does not like the climate, she loves the work she is engaged in now. A regular staff of physicians and surgeons attend the hospital daily, and strangers in Shanghai who have the misfortune of meeting with an accident or contracting a disease will find here a place where they are sure of receiving the best treatment and the most attentive nursing. The work of the Sisters of Charity has been progressing steadily in China, and the great disaster which befell this noble order at Tien-Tsin last year will only help to increase their efforts in behalf of the orphans, the aged, the sick, and the poor of the people who as yet have not fully grasped the unselfish beneficence of their work.

The Zikawei Observatory, built and conducted by Jesuit priests, is the only one on which the mariners of the Chinese coast can rely for weather forecasts. It is in charge of two priests, assisted by several Chinese students. The building is a solid, elegant brick structure with a very high observation tower. It is furnished with a full equipment of modern instruments, and the results of the observations are carefully recorded. It was built more than fifty years ago, and the work done free of charge to the government and shipowners has been the means of preventing numerous shipwrecks. Typhoons are predicted with a certainty, and a few years ago a vessel was lost on account of a delay of a telegram sent from the observatory. A large reference library contains books in all modern languages.

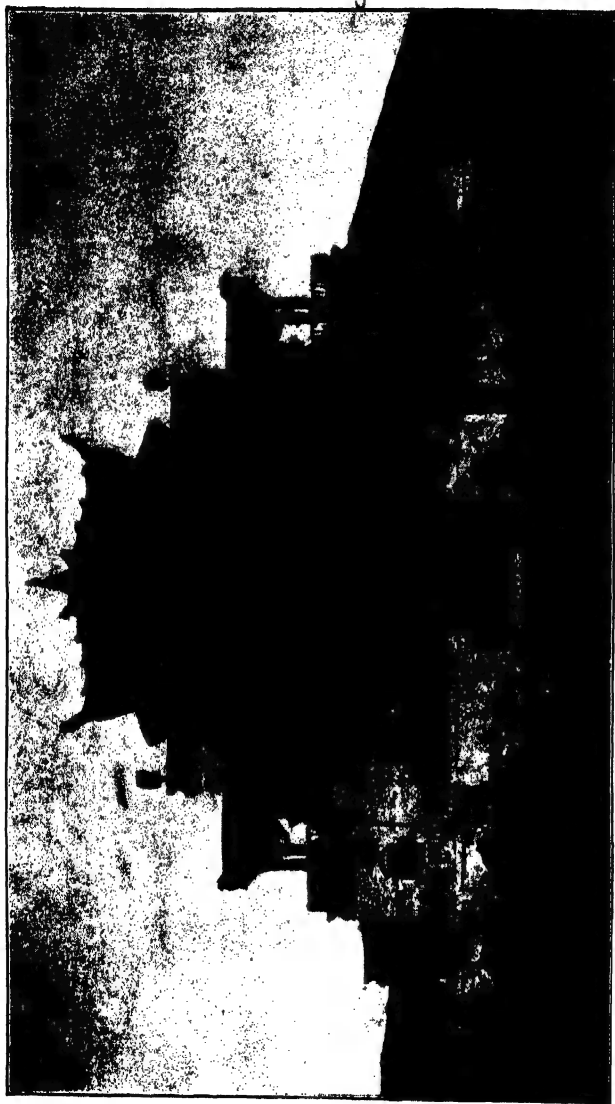
The Jesuit priests have always taken the lead amongst the foreigners in introducing the modern arts and sciences, and there is no better proof than the long

and most useful existence of this great institution. The building is located about six miles west from Shanghai.

On the same grounds are located two other noble institutions founded and conducted by the same order, a school for boys and a school for girls, in charge of Sisters. The monastery contains on an average sixty priests of different nationalities, the French predominating. The school for boys has at present 100 pupils, bright Chinese boys from ten to fifteen years of age. The dormitory is a model of its kind. The recitation rooms are intended for small classes. Some of the teachers are converted Chinese. The boys learn their lessons by reading and reciting aloud.

Each scholar pays only forty Mexican dollars a year for tuition, board, and washing. One of the priests, who conducted us through the various institutions, was the son of a French countess who married a German. He received his education in France, but speaks German without an accent. He abandoned a life of luxury to devote his talents for the benefit of the church he is serving so well. He has faith in the eventual success of the Catholic church in China. He informed me that the number of converts in Shanghai and vicinity amounted to 150,000.

A theological seminary for the education of Chinese priests is attended at present by ten students. In the Sisters' convent adjoining the school for boys, live from 500 to 600 souls. The work of the devoted Sisters is directed exclusively to the care of infant orphans and the education of Chinese girls. New-born children are brought almost daily to the orphans' department, where they are cared for for three months, when a home is found for them with a family in the country. These children when old enough for the schoolroom



BUDDHIST TEMPLE.

are received again and are given the advantage of a practical education. The seminary department is well attended and its influence is making itself felt, not only in the community but throughout China. A village is growing up around this great center of education and benevolence inhabited exclusively by Chinese Catholics. This great institution has stood like a rock amidst all kinds of persecution and adversity, and is destined to remain a strong fortress of civilization and christianization from which the best results can be expected in the future.

A great pagoda with Buddha temple attached is located about six miles south from Shanghai. The tower and buildings are very ancient. We made the trip to this venerable place of Buddha worship with jinrikishas, a method of travel which gave us an opportunity to see something of the country around Shanghai. The land is level, quite low, and well drained. The road is narrow, but well macadamized. On each side of it is a row of large willow trees. Small hamlets and isolated farmhouses are numerous. All of the drainage canals and sluggish creeks contain filthy water and are covered with a thick, green scum of algæ. We passed a number of peach gardens. Among the forest trees isolated and in small groves I noted particularly black ash and cypress. Rice, cotton, and corn are the principal farm products. The gardeners cultivate cabbage, lettuce, radishes, turnips, eggplant, and beans. A number of water buffaloes and goats were seen along the road. The pagoda and temple are enclosed in a large square, both of distinctive Chinese architecture. The moment we arrived we were surrounded by a horde of dirty, ragged beggars, young and old, who made a claim on our generosity by offering joss-sticks for sale. The persistence of

these vendors of temple goods was most distressing. We purchased the number of sticks we thought would please Buddha, but fell short of the expectation of the aggressive, hungry crowd. I patronized an old-matron liberally, but it had no effect in allaying her thirst for more silver. Joss-sticks from all sides were forced into our hands, pockets, and anywhere else where they could find a temporary lodging place. The more we bought the more persistent became the wrangle for more cash. When we entered the sacred precinct of the temple we expected relief from what had become a regular mob. The crowd followed us wherever we went without any signs of abatement.

A number of priests in attendance made no effort to restrain the hungry horde, but they were anxious to obtain their share from the visitors. We next paid our attention to them by depositing some silver coins into their extended hands. The rivalry between priests and mob reached its maximum when a young scoundrel opened the little door to one of the bells and pounded the wooden knocker against the bell with the expectation that this act of courtesy on his part would bring him a handsome tip. This was more than the bystanding young priest could stand; it was a sacrilege that he resented in the most violent manner on the spot. He howled with anger, grasped the young man, and threw him aside. It is unnecessary to say that the priest received the silver and the offender had to be satisfied with the reprimand of his spiritual adviser.

The pagoda is a stately structure that has withstood the aggressive elements for ages without showing any marked evidences of disintegration. The temple is a massive wooden structure and contains a colossal statue of Buddha. Buddha disciples are numerous in the building carved in all imaginable shapes.



CHINESE COURT, SHANGHAI.

Behind the immense Buddha figure is a very interesting illustration of the ascent of this saint into heaven, or something in the minds of Buddhists equivalent to it. The figure rises higher and higher, while the devil below is furious on having lost such a valuable prize. This ancient place of heathen worship is sadly neglected. The grass and weeds in the temple yard, the crumbling wood of the pillars and walls, the decaying images are a sign of the times showing that in this part of China Buddha has lost his power and influence.

What this neglect of Buddha worship means I do not know, but it seems to me that if the Chinese have not found anything better by this time, it does not speak well for their receptivity for religion of any kind. When we were ready to depart the crowd renewed their attack on our generosity with greater violence than ever, and as we seemed to be unable to satisfy their demands a hail of stones followed us, and as the jinrikisha men were equally exposed to the missiles, they made good time, and we were soon out of reach of the ungrateful, frantic, howling mob.

Through the courtesy of Dr. Macleod we were privileged to visit all of the Shanghai prisons. The prison inside of the walls of the city is used for Chinese criminals exclusively.

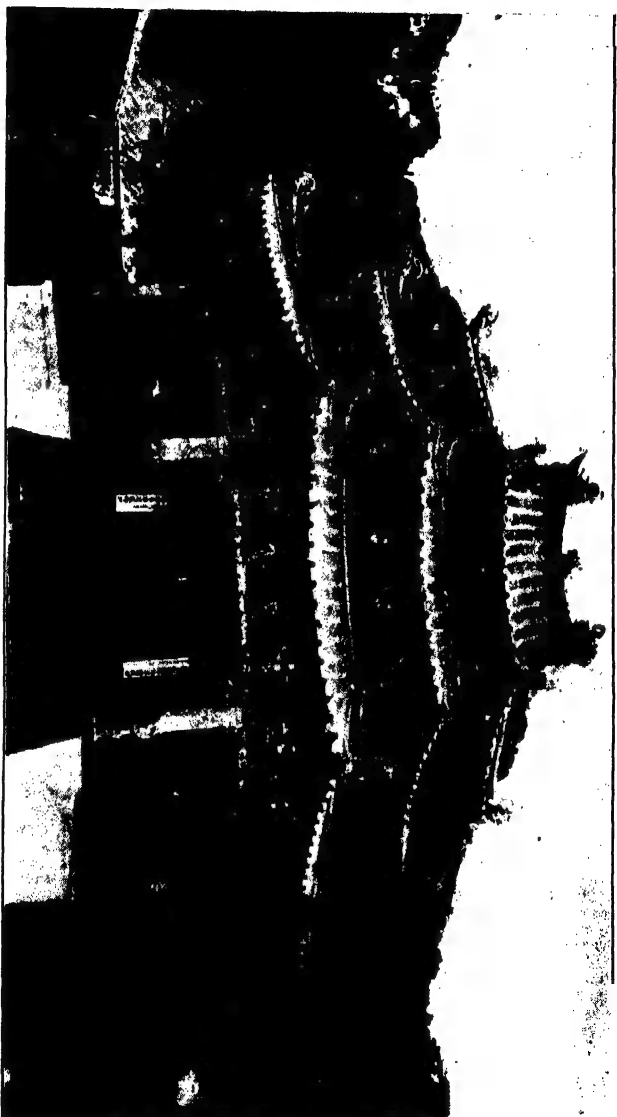
We found here a prisoner confined for a grave offense cangued and besides chained to the wall. Large, angry-looking swellings over the shins of both legs indicated where additional punishment according to the Oriental method had recently been applied. The poor wretch lay on the bare ground, and it was a mystery to me how he could maintain such a position for any length of time wearing such an enormous square wooden collar. The police station in the

European part of the city, where prisoners for minor offenses are confined, is faultlessly clean and the prisoners receive humane treatment. All of the inmates were Chinese of the lowest class, in the majority of cases suffering the penalty for small thefts. Most of these prisoners presented the aspects of well-marked degeneracy.

The prison of this part of the city, entirely under the control of the municipal government, is a modern solid building, absolutely clean and well ventilated. The prisoners are obliged to do intramural work.

A recent outbreak of beri beri has made it necessary to subject the interior of the institution to a thorough disinfection. We had an opportunity to examine about a half a dozen cases of this disease of the tropics. The most conspicuous sign of this disease is an œdema of the legs. The fatality is small. A long-term prisoner had become tired of doing his share of prison work and feigned disease. The attending physician gave him a careful examination and declared him a malingerer. This fact was brought to the attention of the police captain, who conducted us through the institution. He was a typical English officer, who had seen many years of service in India. He prescribed fourteen lashes over the bare back and asked the Indian guard to announce his decision to the prisoner in the only language over which he had control.

The prisoner was standing in his cell near the open door when he received the captain's verdict. The moment before he pointed to the most important anatomical regions as the different seats of his manifold difficulties and made his facial expression correspond with his plans of evading prison work and possibly obtain an early pardon. The Indian guard evidently did his duty well in interpreting the cap-



CHINESE TEMPLE.

tain's orders, as before he had finished his brief speech the prisoner turned as pale as a ghost, his lips quivered, his eyes became staring, and his knees trembled. He retired to his cell to prepare himself for the coming ordeal. Shortly after he was tied to a post in the prison yard, and the fourteen lashes were applied.

I have no doubt next day he was well and willing to work. The lash employed in this institution is a most humane one. It consists of a strip of sole leather about three feet in length and four inches wide with numerous perforations and securely fastened to a wooden handle. Even if vigorously applied it does not inflict subcutaneous hemorrhages, much less abscesses, which not infrequently follow flogging as practiced by the natives.

There is only one voice in Russia and China regarding the value of the Chinese laborer. He is industrious, reliable, and frugal. He will do his work as well when alone as when under supervision. He will always do what he is told and no more, that is to say, he is not officious. In the house and in the field he can be relied upon to perform the task assigned to him. The Chinaman is the ideal laborer, slow to suggest, quick to carry out instructions. He is anxious to comprehend what is wanted of him, and once thoroughly informed he hastens to do his duty. He is the trusted chamberman, the cook, the butler, the coachman, the comprador, the waiter in families, banks, and hotels. He does not expect a tip at every turn, like our negro employees, and when he is fed beyond his expectation—and this is very little—he is profoundly grateful and will never underestimate or forget your generosity. As a servant he is far superior to the negro and the Japanese.

We retraced our steps to Japan on Friday, Sep-

tember 6th, at 5 p. m. on a tender, which brought us two hours later alongside the "Kaga Maru," anchored in the Yang-tse-Kiang at Woosung. The "Kaga Maru" was built at Nagasaki and has done duty between that port and Seattle for one year.

The captain of this ship is a Norwegian, who has been in the service of the same Japanese steamship company for thirty years. He has been made the recipient of a gold medal by his employers for long and meritorious service, a recognition which brings with it an annuity of \$300 for life. The captain is a very popular man with all of the passengers who have made his acquaintance and enjoys the implicit confidence of his employers. At daylight next morning (Saturday) we sailed for Kobe, a distance of 792 miles.

The steamer showed its seaworthiness on this day when a number of hours out a heavy sea was encountered. On Sunday morning we passed Quelpaert Island. On Monday morning early we entered the magnificent harbor of Mogi, and soon after, for the second time we were on Japanese soil.

This short ocean trip was a most delightful one, as besides our little party we carried only four other first-class passengers, and the table and service were above criticism. Two of our fellow passengers were a young Chinaman and his wife on their way to a Methodist college in Kansas, where they expect to prepare themselves for missionary work. The Chinaman had acquired a good knowledge of the English language in one of the mission schools and predicted a brilliant future for the Protestant churches in China.



MODERN CHINESE OFFICERS AND SOLDIERS.

CHAPTER XIV.

CHINA PAST AND PRESENT—ITS PEOPLE—THE PRESENT SITUATION AND ITS CAUSES—AGGRESSION, OPIUM, AND RELIGION—RECENT DISTURBANCES—THE MARTYRDOM OF THE SISTERS OF CHARITY—THE NEEDS OF CHINA—ITS MILITARY STRENGTH.

So difficult is it to bring people to approve of any alteration of ancient customs: they are always naturally disposed to adhere to old practices unless experience evidently proves their inexpediency.—Livius.

" PROGRESS is the watchword of the beginning of the twentieth century. It is echoed and re-echoed from the most remote parts of the world. It has stirred nations as never before, and is destined to continue to do so until civilization has accomplished its mission the world over. China so far has refused to take an active part in joining hands with other nations in extending the benefits and blessings of civilization to its millions of inhabitants.

It was the spirit of progress which entered Japan less than half a century ago that made that little island country superior to colossal China and its easy conqueror. China has led a hermit life for many centuries, and so far has not experienced any desire to better its condition by adopting a progressive form of government and modern methods of living. China has become moss-grown by its extreme conservatism, made more apparent by the two progressive neighbors, Russia and Japan. China has learned this by recent sad and costly experiences. The great nations have determined to open China to the light of civilization. The late Chino-Japanese war and the more recent con-

flict with the allies must have forced the conviction upon the most conservative elements of China that the time has come to profit by modernizing its institutions and by bringing them in conformity with those of its immediate progressive and aggressive neighbors. China is now undergoing a crisis which must create an awakening that will eventually lead to the lasting benefit of the much tried and much persecuted nation.

Of late, owing to its defenseless condition, China has become an easy prey for near and distant countries. It has lost in rapid succession a number of its most important strategic points. Unless China rises phoenix-like from its ashes it will lose its identity as a nation. It would be a great pity to wipe from the face of the earth an empire that has a history that dates back thousands of years and an antiquity in the arts and sciences that commands respect, if not admiration. The disintegration of China would be a great disaster to its 400,000,000 inhabitants.

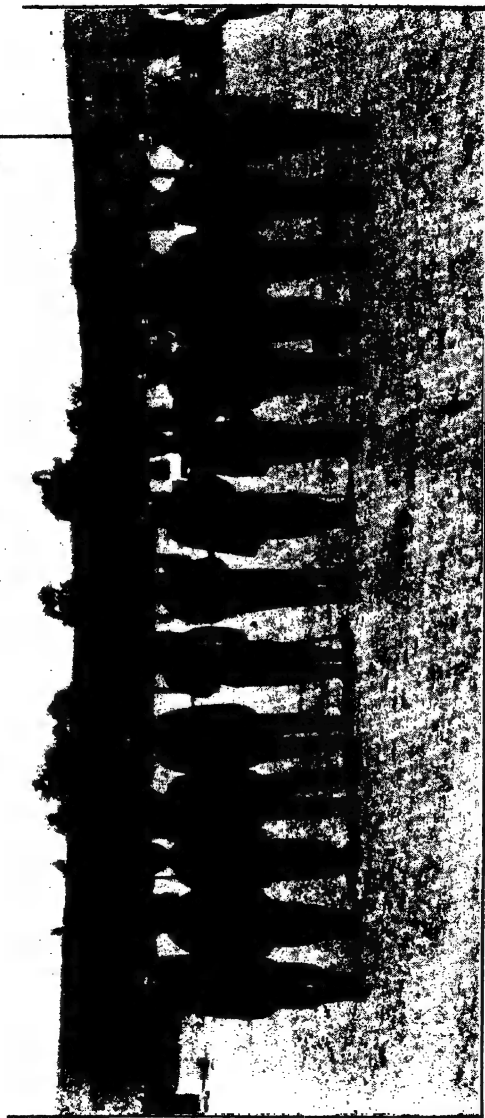
If China had profited to the extent it should have by the Japanese war it could have invested for the benefit of its people the 300,000,000 taels it is called upon to pay for the last war. Such a repetition of the consequences of harmful conservatism cannot fail in inciting the government to make the necessary changes to elevate its institutions and people to a level with the neighboring competitive nations. China must learn to appreciate that

Peace is procured by war.—Nepos.

and that

The sword is the protection of all.—Seneca.

The resources of China are simply enormous. All it lacks to preserve its integrity and protect its interest is a wise leader and a stable, honest, and just govern-



EUROPEAN OFFICER AND CHINESE SOLDIERS.

ment. With a modern organization of its military strength it could place a million of the best soldiers in action at short notice, and has enough men of military age to form an army of 16,000,000. It needs more railroads and better telegraph communications, expert foreign officers to organize its military force, but if all this were done within five years it would become the most formidable warfaring nation in the world. It imports little; it could by proper management of its enormous resources export much.

The vastness of the country and its geographical location render the climate very variable; on the whole, it is continental, influenced by its eastern location. The climate is characterized by extremes, hot summers and cold winters, which applies to the southern as well as the northern part of the country. Variety of soil and climate makes it possible for the farmer and gardener to raise products growing in the temperate and tropical zones.

The flora is rich, owing to the same influences. In the southern part is the land of oranges, lemons, cocoa, sago palms, and bananas; farther north grain, rice, and subtropical fruits with forests of coniferæ, and still farther north the products of the soil correspond with those of middle Europe, and in the western part are the Chinese Alps with the best of pasturage. The principal farm products are rice, wheat, corn, sugar cane, tea, tobacco, cotton, indigo, and all of the different garden vegetables. Camphor, ginger, oranges, lemons, and other fruits are important articles of export. China can feed its hundreds of millions of inhabitants with the products of its own soil.

In certain parts of China excellent sport for the hunter can be found. A species of monkey, the great pet of the Chinese, inhabits the provinces of Kouang-sit

and Kouang-ting, and the rhinoceros is found in Yunnan. The royal tiger is occasionally met with in the western part of China. The birds, insects, and amphibia correspond with those found in the tropics.

In the forests of the western provinces bears, the musk animal, wild goats, dogs, and cats attract the hunter. Antelopes and deer are plentiful and are distributed over a greater area. Water birds, such as ducks, geese, swans, and pelicans, are abundant on the inland lakes. The inland lakes and rivers abound in fish and the extensive coast furnishes all kinds of salt-water fish. China has its own meat, fish, and game, and much to spare.

Although China has a population of over 400,000,000, there is a great unanimity in the physical development, language, intelligence, and character of its inhabitants. The primitive inhabitants now reside in the western provinces and they are becoming rapidly extinct.

The physical structure of the Chinese shows the characteristic Mongolian type as described by Blumenbach. The face is square, malar bones prominent, nose flattened, nostrils wide, the hair jet black and straight. On the whole, the growth of the beard is scanty. The eyes are squinting and a fold in the upper lid renders the slit between the eyelids long and narrow. The color of the skin varies from a brown-yellow to a soft yellowish-white tint of the female nobility. In both sexes a tendency to obesity manifests itself at an early age. The hands and feet are strikingly small and well developed. The feet of the women are crippled and dwarfed by tight bandaging from infancy.

In reference to the intelligence and character of the Chinese must be mentioned a willingness to work,

patience, perseverance, frugality, economy, temperance, patriotism, love and respect for parents and ancestors, a desire for knowledge, and a fervent adoration for ancient customs and habits. Among the conspicuous faults must be enumerated a morbid desire for money, egotism, and opium smoking. Gambling is a national vice. The Chinese have no fear of death, a virtue that makes them good soldiers, provided they have confidence in their leader.

In memory and aptitude to learn they are on par with the Europeans. They are good mathematicians, but are not accurate in the sciences. As business men they excel everywhere. China is a great country and its people are well adapted for the coming civilization. By nature and limited education the Chinaman makes a good law-abiding citizen. Until now the contempt for foreigners and foreign literature and progress has created in China a destructive scholasticism. They follow blindly the teachings of their classical authors of hundreds of years ago whose views they continue to regard as infallible and regard with suspicion anything and everything that does not harmonize with the teachings and practices of their ancestors.

A familiarity with the teachings of these ancient authors is the requirement that every one must meet who makes any pretension to a higher education, and constitutes the only pathway to the most important public offices. Commentaries on these old works are numerous and are carried down to the present time. Chinese computation of time and calendars date back more than 3,000 years before Christ and are remarkably correct.

The causes of the Chinese crisis are summed up in the following: 1. Aggression of adjacent and distant nations. 2. Opium. 3. Religion.

In order to understand the present Chinese situation properly, one must study the commercial and diplomatic history of the empire at the beginning of the nineteenth century. Early in the last century Russia claimed and had taken a portion of China at the north and northwest, by means of Siberia. Afterward by maintaining a religious mission, Russia in reality established an embassy. As China's gates were closed to all other foreigners, England resented an act that barred her from trade privileges, and so affairs in the Orient assumed a serious aspect. As usual, the "civilizer of nations" (?) with her commercial instinct, coveted the vast opportunities for trade aggrandizement.

It was previous to this and during the reign of Kia-King (1795-1820) that the relations of the English with China attained any importance. During this period commerce in opium, furnished by India, was established. The Chinese, by cultivating and acquiring a passion for this poisonous and degrading drug, consumed it in alarming quantities. The demand for it, created by England, was supplied by her—to her own financial interest. In 1815 and 1817 England supplied China with 3,210 chests of the drug so fatal in its effects upon the energy of mind and body. In 1817 this figure increased to 34,000. The government of the empire had previously taken measures to abolish the sale and use of the drug among its people, and in this effort was supported by Russia.

The difficulties that terminated in the opium war began during the rule of Tao-Kouang (1820-1850) in 1834. The concessions of trade granted to the company of the Indies having expired, and trade being free, England appointed Lord Napier superintendent-in-chief of English commerce in China, and he, accompanied by a large number of English subjects, pro-

ceeded to Canton, the only port open to Europeans. The Chinese government ignored the party, and Lord Napier died before accomplishing the object of his journey. Opium at this time was only admitted to China as a contraband, but the traffic was conducted with so much boldness, owing to the secret aid of dishonest officials, that in 1838 the English sold into China 4,375,000 pounds valued at \$20,000,000.

Angered at such flagrant disregard of his laws, the Emperor, Tao-Kouang, sent Lium-tse-sin to Canton with full powers to enforce his orders. In March, 1839, Captain Elliott, for three years English superintendent, was imprisoned with other foreigners in Canton.

Threatened with death if he refused to deliver all opium on board English ships in Chinese waters, he complied with the demand and surrendered 22,000 chests of the drug.

On June 28, 1840, an English fleet appeared in the river of Canton. July 24th the English took possession of Chusan, and on August 11th Elliott entered the Pei-ho River. The treachery of the Chinese government is unquestioned, and during the following two years the English fleet, under command of Admiral Parker, met with violent resistance. Finally, August 6, 1843, when their ships anchored before Nankin, the Emperor was forced to yield to the demands of the intruder, and on August 26th the Chinese plenipotentiaries signed the treaty which opened the ports of Canton, Amoy, Fongtchou-fou, Ning-po, and Shanghai to the English, besides surrendering the Island of Hongkong, in the Bay of Canton.

In addition England obtained the power to regulate the custom-house rights, the establishment of consuls of their own nation in the five chief ports of the

empire, an absolute equality of the two governments in their official transactions, and to climax the whole thing a war indemnity of \$2,400,000. Opium, the real cause of the war, was not referred to in the treaty. England took advantage of this oversight, however, and increased her traffic in this line, and, though contraband, she brought into China in 1843, 40,000 chests.

By this time other countries were awakened to the vast commercial possibilities in the newly opened empire. July 3, 1844, the United States signed a treaty of commerce with China. France followed in October of the same year. This treaty included a provision which gave the Chinese the privilege of joining the Roman Catholic church and the restitution of the churches erected since the time of the Emperor Kang-hi (1792), with the exception of those that had otherwise been disposed of.

The civil insurrection that broke out in China after the conclusion of the European treaties, and which for a long time was barely noticeable to the powers, gave the government many opportunities of ignoring and evading the compacts made with foreign nations. Finally England and France opened war on the empire, and at its completion in 1858 forced two new treaties. However, when England and France sent their representatives the following year they were not permitted to enter Peking. War was again declared by the two foreign nations, and it was not until 1860 that peace was restored.

The last treaty included the opening of three new ports, the ratification of the treaties of Tien-Tsin, the restoration of religious liberty, and a war indemnity of \$12,000,000 payable to each of the two powers.

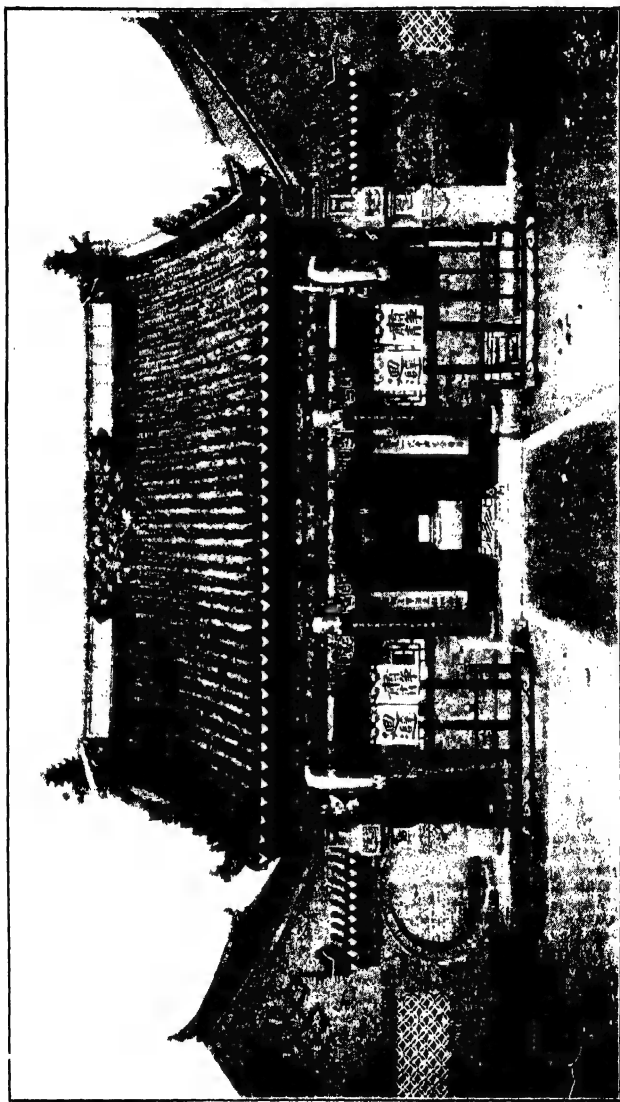
The following year a series of civil revolutions

broke out in the dissatisfied empire, and as it was then under the rule of Prince Kong, who had kept faith with the powers, the government appealed to the two allies for assistance. This alliance of China with France and England, which afforded the former protection, should have taught China the value of European friendship.

The disastrous result of the war with Japan four years ago should have opened the eyes of China regarding the value of modern methods of warfare, but this trying lesson was not heeded and was repeated last year. The bitter experiences through which China has passed during the last fifty years should suffice to create a desire for progress, and to take the necessary steps to preserve an empire rich with the memories of the distant past.

One of the principal causes of unrest in China has been attempts on part of foreign nations to force upon its people a new faith. No wonder the Chinese were made suspicious of such efforts in the light of past experiences. Desirable as it is that the Chinese should embrace the Christian religion, it is not in accord with the teachings of Christianity to resort to the sword in accomplishing this object. When Peter, the most zealous of the Lord's disciples, drew his sword in defense of his Master, he was promptly rebuked and then followed the great events which culminated in the salvation of the world.

The Christian conquest should be one of peace and not of war. It is the whispering of the gospel and not the roar of cannon and the tumult of war that appeals to the soul. It is the Christ-child in the cradle and the Savior on the cross and not the war-cry that can soften the hearts of heathens and induce them to seek salvation.



CHINESE TEMPLE AT AIGUN.

ther in bringing the new-faith within reach of all of the Chinese people.

Millions of money have been spent and many precious lives sacrificed in these laudable attempts to christianize China, but, on the whole, the results have been rather disappointing. It is not surprising that a nation that has been under the controlling influence of its classical writers and teachers for thousands of years should be slow in adopting a new religion from the hand of nations that have been greedy in gaining a commercial footing upon its soil.

Another element of disturbance in the government of China is to be found in the many secret societies that have originated and have found ready support among the credulous, superstitious masses of the people. The civil insurrections for the past thirty years have been waged by these societies. Cruel in the extreme and fancying that punishments meted out to some of their number were due to the influence of Europeans, they turned on the Christians and their persecutions have resulted in the massacre of hundreds of missionaries.

The horrors which preceded the war between China and the allied forces were initiated and conducted by these fanatics, who had for their principal object the extermination and exclusion of foreigners. The government was powerless in suppressing these outrages and the civilized nations had to step in and end the atrocities of the bloodthirsty mobs.

The Jesuits at all times conferred great advantages on the Chinese. As engineers, architects, and surgeons they did much useful service, as well as by their translations of important religious and secular works into the Chinese language. Gerbillon and Bouvet translated Euclid and other mathematical works.

Thomas taught the people algebra. Brocart instructed them in the fine arts, and Pareira in music.

To a deputation of Jesuits, Emperor Yung Cheng said: "You tell me that your law is not a false one. I believe you. If I thought that was false what would prevent me from destroying your churches and from driving you out of the country? . . . But what would you say if I were to send a troop of bonzes and lamas into your country in order to preach their doctrines? How would you receive them? The converts you have made already recognize no one but you, and in a time of trouble they would listen to no other voice but yours."

The recent disturbances for which China is now suffering the consequences were largely due to a superstitious belief among Chinamen that the Europeans are in the habit of using the eyes and hearts of deceased infants for medical purposes, and the numerous deaths which occurred during an epidemic only confirmed this belief. The Chinese government and people are tolerant of all religious creeds; they only object to proselyting.

That part of the religious history of China which concerns the Sisters of St. Vincent de Paul is interesting, as we find that members of this order were the pioneers in establishing a religious community of women on Chinese soil. The first colony of Sisters embarked for the Orient October 23, 1847. Twelve Sisters formed the courageous party, but this number was lessened by the death of one at sea, and the death of the Superioress within a month after their arrival on the prospective field of labor. The voyage by way of America and the Pacific Ocean lasted eight months, and was one of great hardship to the devoted women.

to the heathen Chinese. Arriving at Macao June 21, 1848, they were detained four years in that place by a series of circumstances respecting the foundation of their community on a firm and permanent basis. After many vain efforts they were finally transferred to Ning-po June 21, 1852, and there took up the real work of their order.

The Sisters came and remained under the protection of the French navy. The labors of the small band of Christian women in the south of China bore such good fruit that, directly after the proclamation of religious freedom in the empire, Mgr. Mouly, the bishop of the province, returned to France in quest of more Sisters to establish the work in Peking and Tien-Tsin. His request was granted, and on February 22, 1862, he left Paris with fourteen Sisters to labor in the new and promising field. They arrived on July 2d at Tien-Tsin, a city which was to be for some of their number the place of their future martyrdom.

Five Sisters only remained in the town that was to be made memorable by their massacre; the rest proceeded to Peking. The intention of the Sisters who remained in Tien-Tsin was to open an orphanage for boys and girls, then a dispensary, and finally a hospital for the sick poor.

Tien-Tsin at that time was a dangerous place and the Christians were so few that a priest was sent only on an annual visit. It was among these conditions the Sisters began their work of holy childhood, with its accompanying labors in dispensary and hospital work.

Superstition, fanaticism, and an undying respect and love for old traditions make the Chinese a suspicious and treacherous people, and it was not until cholera had ravaged the city that the natives gained confidence enough to intrust their sick to the tender

care of the Sisters. The Sisters, like all of the Europeans, were called "white devils." The success of the Sisters in treating and taking care of the cholera patients, instead of gaining a well-deserved recognition and gratitude, increased the existing mistrust, as the Chinese attributed it to sorcery or witchcraft. The simple remedies employed by the Sisters were regarded by many as a strange form of magic.

All available space in the orphanage was soon occupied and another building had to be purchased to take care of the motherless and fatherless Chinese children. In 1866 one of the Sisters succumbed to typhus fever, which was then raging in the city. The same year the Rev. Fr. Chevrier joined the Sisters and directed their work. The rapidly increasing demands on the Sisters made it necessary to increase their number. A request to this effect was made by their director, and was promptly complied with.

During their long stay among the Chinese in Tientsin and notwithstanding the hundreds of lives saved through their faithful and unselfish ministrations as nurses, the Sisters had never gained the entire confidence of all the people of the town.

It is only necessary to recall the massacre of 1870 to substantiate this. In consequence of the prevailing mistrust constantly nurtured by the natives, the position of the Sisters in 1870 became most critical, as stories were being circulated of the murder of Chinese children by them. The Sisters were also accused of tearing out the hearts and the eyes of murdered children to prepare their charms and sorceries.

The mistrust increased, and finally the antagonism toward them increased to such an extent that violations of the cemetery on the pretext of examining the bodies were numerous. These outrages of the dead

were carried on to discover if the Sisters and missionaries really tore out the eyes and heart for their "charm medicines." The French consul was appealed to to prevent these desecrations, but little, if anything, was done by that official. It has been claimed that if the French consul had taken decisive action to punish the guilty ones the horrible crimes these acts resulted in might have been avoided. In the account of the horrible butchery of 1870 that has come down to us, we find many instances where children were stolen by the natives and were either compelled to act in low plays or were placed in infamous houses.

Hatred of the foreigners, and particularly of the Sisters and clergy, became so intense that those poor missionaries were charged in most cases with the theft of children reported to the Chinese authorities, and some of the Chinese even went before magistrates and testified to the truth of these accusations.

About this time General Tchen-Kono-Joni, a rabid hater of foreigners and the leader of a band of 600 of the worst natives, came to Tien-Tsin ostensibly to offer a sacrifice for his adopted grandfather at the pagoda of San-ko-lin-sin. He came secretly and on his own authority. The local mob was encouraged in their atrocities against the Sisters by this fiend and his military tramps. Chinese were found who went before the consul and swore they had been given money by the missionaries and Sisters to provide them with stolen children. Monday, June 20th, affairs reached a climax when the Sisters received a notice that the mandarins would call on the morning of the next day to visit the house.

The next day gongs were sounded at nine o'clock in all parts of the city. Groups of angry Chinese formed here and there on both sides of the river. A

mob stationed themselves in front of the mission and the French consulate, and stones were thrown at intervals against the windows. An hour later the prefect and subprefect made the expected official visit to the missionaries. After an examination of the premises to discover the hiding-place of the hearts and eyes said to be concealed in some obscure corner and having found nothing, the officials left, and after doing so, made no attempt to quiet the raving mob. The priest and his assistant hastened to the Ya-men and begged them to inform the people of the result of their visit and disperse the crazed mobs.

It was at this time the French consul for the first time recognized the imminent danger. Sending for a guard for the consulate, adjacent to the mission, the magistrate sent him only three little mandarins to protect the consulate. He refused this proffered aid and proceeded in person to the Ya-men to secure protection for his people. Finding he could not get any satisfaction, he returned to the consulate with his secretary. They were attacked by the mob, and after making a brave defense both were killed near the entrance to the consulate. The mob then entered the consulate and killed the remaining inmates.

Another infuriated mob then attacked the mission. The two priests were killed in the garden connecting the mission with the consulate. Both had their chests and bodies torn open and were so disfigured as to be almost unrecognizable. The next victims of the mob made still more crazed by the sight of blood were the Sisters of Charity. This mob was led in person by the Chinese general. The Sisters were without protection. The following is a literal account of this the most savage massacre that has disgraced the close of the nineteenth century:

"At two o'clock the Sisters as usual had their spiritual reading in the community room, and at the end of the exercise the reader of the week made the usual conclusion, according to the rule, saying, 'God is love, and he that dwelleth in love dwelleth in God, and God in him.' It was then that a servant came to the Sister Superior and announced to her that from the belvedere they saw the flames which were devouring the mission house and the church. Then the Sister Superior summoned all the Sisters, orphans, and little children into the chapel, the babies of the creche being put into the crypt under the choir.

"The Sister in charge of the sacristy, helped by a native girl, a convert, who assisted her in the office, took the monstrance and the cruets with the chalice, and wrapping them up in a mat, ran in haste to the orphans' dormitory, which was situated in front of the sacristy, and hid them there, where they were found later on from information given by this girl. The Sisters then, on a signal from their Superior, came out and grouped themselves round the tabernacle. The Sister opened it, and gave holy communion to all her community.

"Meanwhile the mob was at the gates. One of the first of the bandits, bearing a long pike, set it against the wall, scrambled on to the roof, and from thence reached the belvedere. Following him came several others. Then, by a measure of prudence, they fired a small cannon.

"At the same time the leaders gave, by the sound of the drum, the order to break open the door. The first set, who were only the common people, dashed into the pharmacy, and smashed all of the bottles and pots, hoping to find there the eyes and hearts which they had been told so often were used by the Sisters

for medicine. Then they went on to the inner court. Sister Margaret, the Superior, who was accompanied by the virgin, Cecile Kao, who was employed at the pharmacy, stood before the chapel. To try and calm the intruders Sister Margaret advanced quietly and with perfect simplicity to the leader of the band, and said gently, 'What do you want with us? We only try to do all the good we can to your poor and sick. If you wish for our lives, take them. We are ready to die. But spare the children.'

"The answer to these touching words was a cut with a huge two-handed sabre, which fell on her head and cornette, and killed her on the spot. These barbarians afterward cut off her hands and her feet and thus mutilated their first victim. During the martyrdom of the Superior, the Sisters came out by the front or side doors of the chapel, while two of them remained in the crypt with the orphans. All were massacred almost simultaneously and very quickly, some by lance thrusts, some by the knife, and others by blows of axes. To-day little columns of white marble mark the spot where each Sister fell, each bearing the name of the victim. Sister Andreoni was close to Sister Margaret, and was killed directly after her with a hatchet, then impaled and placed on the outer door.

"Sister Cluvelin was wounded at the southeast angle of the chapel, and was then dragged to the pharmacy, of which she had the charge. She had a more horrible martyrdom than the others, for while still alive she had her eyes and her heart torn out. Sister Viollet was murdered a yard or two farther on toward the north. The assassins dealt her so violent a blow on the head that she was completely flattened. Sister Legras was literally cut in half, Sister Adam

was struck by a lance in the region of the heart. Sister O'Sullivan was leaving the chapel and the savages, seizing a saucepan of boiling water, threw it over her and she rushed to another part of the chapel, where she was finally knocked down and killed. Sisters Pavilion and Tillett, who had taken refuge in the crypt, were inhumanly tortured when their hiding-place was discovered. A fire was made and they were roasted, the men holding their arms and legs. Sister Lena was the last victim among the Sisters. She was under the veranda of the orphanage of the bigger children, and was wounded by a lance. Cecile, the young Chinese girl, who saw her a few minutes before she breathed her last, found her leaning against the door of the great orphanage. She had neither her cornette nor her collar, and Cecile gave her a handkerchief to cover her bare neck."

The mutilations of the bodies of the dead Sisters which followed the fiendish butchery are too horrible for description. The complete extinction of this noble band of women by most cowardly and atrocious murder will go down through ages as a sign of the glorious gift of faith that inspired them during life and gave them courage to meet death with a brave heart. When the critical moment came and the brutal savages demanded their lives they made no plea for themselves. Their last thoughts and their last acts were for the little children whose lives and souls they had saved. The world has had another and most striking illustration of the genuine piety, undivided devotion to duty and unparalleled unselfishness of the Sisters of Charity under the most trying circumstances.

History can point to no better proof of true Christianity as exemplified by its greatest virtue—charity, keen sense of duty, and child-like submissiveness to

God's will. This is only one out of thousands of illustrations of what this noble order has done for the saving of the lives and souls of the orphans, the sick, and the poor. The base ingratitude, the horrible death meted out to these sainted Sisters had no effect on the courage and devotion of their community, for as soon as the news of the massacre of the ten Sisters was made known, over 300 Sisters in their own community volunteered to take their place. The Sisters have gone to their reward, but their blood, shed so willingly and heroically on Chinese soil, will bring fruit to the moral and spiritual saving of the nation.

The work of the Sisters of Charity in China in providing for the orphans and in taking care of the sick and poor will eventually pave the way to civilization and christianization of the Chinese nation. The murder of the minister of Germany, the butchery of hundreds of missionaries and their families, the destruction of missions and churches are events so fresh in the memory of the reader that they need not be referred to here. They were all crimes committed by frenzied mobs fired by hatred for the foreigners.

The mob more restless than the sea.—Seneca.

Unless promptly dispersed by the strong arm of the government, it becomes a pack of human fiends that knows no discretion and is incapable of exercising mercy. The outrages have been avenged by the combined action of the most civilized nations, and let us hope that every devil in human form who laid his hands on the martyred Sisters went headless to his grave. China has been sufficiently chastised; let the avenging hand rest. The very brutality of the crimes and the prompt punishments that followed should induce the nations that were instrumental in bringing

the wrongdoers before the shrine of justice to consider now:

*It is a noble act to bestow life on the vanquished.—
Italicus.*

Erring China, under healthful influences, should be given an opportunity to introduce and carry into effect the necessary reforms to elevate herself to the dignity of a civilized, progressive nation. Now is her best opportunity, for

*While we are deliberating, the opportunity is often
lost.—Publius Syrus.*

and

*Be wise to-day;
'Tis needless to defer.—Young.*

China has been humiliated and has asked forgiveness of the foreign nations who inflicted prompt punishment upon the leaders of the rebellious hordes. The chastised country will be made to pay in cash all of the expenses of the allied forces that exercised justice and restored order. China cares nothing for the lives of the perpetrators of the outrages, but she is keenly sensitive concerning the payment of the enormous indemnities, for

*Nothing stings more deeply than the loss of money.
—Livius.*

and no one appreciates the force of this sentiment more than the Chinese.

If China does not heed the lessons she has been recently taught, the disintegration of the empire will follow as a necessary consequence. The way out of the present difficulty has been shown her, and if she ignores the well-meant advice, she and she alone will be responsible for what will follow. What China needs now is a strong leader with progressive ideas, a

man of learning, cool judgment, and dauntless courage. China needs a Washington to emancipate her from her antique ways and inspire her with the spirit of progress that will re-establish the old empire upon a modern basis. It takes a man of the people endowed with wisdom, foresight, and courage to command the confidence of the masses. The Chinaman is naturally distrustful, and the recent reverses have made him more so.

China must follow the example of her neighbor, Japan, and elevate herself to the rank of a civilized nation. This can only be done by establishing schools, colleges, universities, hospitals, etc., under the supervision of foreign teachers. The next and most important radical change that is urgently needed is the organization of an army large enough to quell insurrections promptly and to defend her borders against intruders.

The Chinese make good soldiers, provided they have confidence in their officers. This was the opinion of General Gordon when he commanded the imperial troops. China must again look to foreign nations to furnish military instructors, under whose supervision the army should be organized and placed on an efficient war footing. Modern arms must be purchased with which to supply the troops. Forts must be built and armored to defend what is left of her coast and waterways. All this will cost a fabulous amount of money, but it must be done to save the empire, the life of which is threatened from within and without. China must accept civilization in order to maintain her position in the Orient and to prevent further losses of important strategic points, as the loss of each one of such points gives foreign nations additional foothold and claim upon the whole.

With the awakening of China the prosperity of the Orient will increase, as it will open the doors to many resources which for ages have remained idle under the conservative rule of the moss-grown government. The resource of China in men of military age is simply enormous—16,000,000. If only one-tenth of the available material were utilized, properly disciplined and equipped, China would have an army that would be invincible to the military forces of any one country. China must learn that

*In time of war we must be speedy in execution, and
advance to honor through the path of danger.—
Italicus.*

CHAPTER XV.

THE AWAKENING OF JAPAN—COMMODORE PERRY'S MISSION AND ITS SUCCESS—NEW JAPAN—EDUCATION—THE JAPANESE ARMY—THE NAVY—STUDENTS—THE JAPANESE—ORIGIN OF THE PEOPLE—THEIR QUALITIES—HABITS—THE JAPANESE AND THE NEW WOMAN—FOOTWEAR—JEWELRY—RELIGION—MISSIONARY WORK—ST. XAVIER—CULTURE AND TASTE—LANDSCAPE GARDENS—DWARF TREES—FARMING—THE NEXT GREAT STRUGGLE.

No government is safe unless it is strong in the good will of the people.—Nepos.

THE renascency, the awakening of Japan, dates back to the time when Commodore Perry opened its doors. At the parting banquet given to our little party by the profession of Tokyo, Commander Suzuki, of the imperial Japanese navy, in his speech referred to this event most feelingly. He called Commodore Perry the Washington of Japan, and alluded to the recent ceremonies of unveiling of the Perry monument on Japanese soil, at which the Emperor was represented and the nobility and naval and military officers of high rank were in attendance, manifesting in a worthy and dignified manner the estimation in which the memory of our naval hero is held in the hearts of the people he made great.

A good account of the manner in which the light of civilization entered this dark and obscure island empire without bloodshed is given by David Murray. The Portuguese and Dutch had made repeated attempts to unlock the country before it was left for the United States to open its doors to commerce and civilization. The Portuguese were banished and the Dutch established themselves at Nagasaki in 1640 on a little island



THE MIKADO.

three acres in extent, where they carried on their trade for more than 200 years.

The government sternly opposed the admission of foreign ideas and further intrusion of foreigners. During the early part of the nineteenth century various nations made attempts to communicate with the government, but were always persistently opposed. Geographically, it was destined that the United States should open the gates. The immediate incentive to such action was the desirability of securing a coaling station between China and the port of San Francisco.

Commodore Matthew C. Perry, who was commissioned with this important duty, made the most elaborate preparations for the expedition. The fleet under his command consisted of the battleships "Susquehanna," "Mississippi," "Plymouth," and "Saratoga," and sailed from Norfolk November, 1852, and by the way of the Cape of Good Hope reached the Chinese Sea and entered Yedo (Tokyo) Bay, July 8, 1853, and came to anchor off the village of Uruga, not far from the present site of the dockyards at Yokohama.

His dealings with the Japanese government were characterized by dignity, good judgment, and firmness. He had instructions to exhaust all peaceful measures in accomplishing his object before resorting to force. With wisdom and foresight he carried out the letter as well as the spirit of these instructions.

At that time the anti-Shogun agitation was at its height and added much to the difficulties he encountered. The Daimyo of Mito objected most persistently to any kind of treaty. After visiting China, Perry returned to Yedo Bay, February 13, 1854, with a fleet of seven vessels, which was increased later by the addition of three more. The final deliberations were held at

Koma Kawa, near the present city of Yokohama. The treaty was made and signed March 31, 1854.

The action of the United States was followed promptly by Great Britain, Russia, and the Netherlands. The treaty was made with the Shogun government, hence its legality was questioned by the Emperor's adherents. The first consul, Mr. Townsend Harris, was received by the Shogun with the ceremonies due a plenipotentiary, December 7, 1857. Mr. Harris effected a commercial treaty, and all principal ports were soon opened. After many dissensions and hard-fought battles with conflicting parties, the Emperor established the present constitutional government, February 11, 1889.

As soon as Japan was opened to the outer world by intervention of the United States, its people were ready and eager to reap the benefits of Western civilization. The Japanese are and always have been great imitators. They owe much to China and Korea, from which countries they have been borrowing for centuries literature and art. When they were brought face to face with the Americans and Europeans, they were quick to grasp the golden opportunity to step into the ranks of civilized nations. They have succeeded well, far beyond all expectations.

In less than fifty years, old Japan has become new Japan. A trip through Japan opens the eyes of the astonished visitor by the scientific and charitable institutions that would favorably compare with those of countries that boast of a civilization dating back for centuries.

It has an admirable system of education; its charitable institutions, prisons, and reform schools are models of their kind; it has a standing army that has shown its efficiency in two wars; it has a navy of



THE EMPRESS OF JAPAN.

which it well may feel proud and that threatens to become the most formidable one in Oriental waters.

How were these great radical changes effected in such a short space of time? Japan has again been imitating, and this time imitating the best that could be found the world over. No sooner were its doors opened than French and German military officers were invited to teach its young men the art of warfare. The bow and arrow, the catapult, and the matchlock were thrown aside and modern weapons of most recent patterns took their place. The foreign officers have disappeared and their places have been taken by the men they instructed. Japan has now a well-drilled, well-equipped, well-disciplined standing army of 136,000 men ready to take the field at a moment's notice.

The preparedness of the Japanese army is the secret of its strength. When Japan becomes engaged in war it does its work quickly. It deals blow after blow before the enemy is aware of the actual situation. The Japanese troops were ahead of all other allied forces in the attack on Peking. The rapid mobilization of troops will be the secret of success in future wars, and no other country has better facilities or has made better preparations for this part of military strategy than Japan.

Japan manufactures its own guns and ammunition. The present weapon is a small-bore rifle that will carry death and destruction at a great distance. Cannon are of the most improved patterns, and the artillery branch of the military service is carefully looked after by the government and the commanding officers.

The Japanese make excellent soldiers, and the soldierly spirit has taken possession of the youth of the land. The new army has had easy conquests, but it is ready and well prepared for greater things. The

Japanese soldier will never lack the most careful attention and nursing when wounded or sick at home or in distant lands.

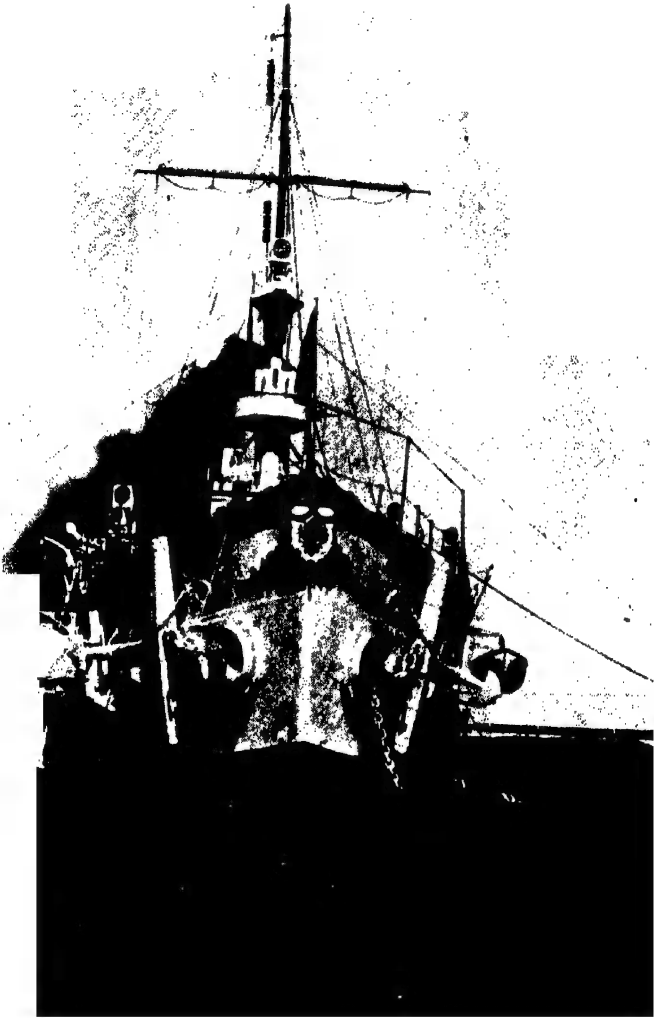
The medical service of the army has kept pace with its growth and advancement. Permanent hospital buildings, hospital ships, tents, ambulances, litters, medicines, dressing material, food supplies are all in readiness for the sick and wounded. An army of Red Cross nurses is ready at a moment's warning to take its place.

Japan's navy is not a very large one, but one of the best. Her battleships, all of modern construction, were built in foreign shipyards and at home. They are all mounted with guns of the most recent improvements. The Japanese is a born sailor and will do as efficient service on the men-of-war as on land.

Japan is watching developments in the Orient with a keen eye, and should occasion arise to resort to arms she will be found ready for the emergency and it will take a formidable enemy to defeat her forces on land and sea.

When Japan opened her eyes and looked through the open doors into the wide world beyond, she soon detected her pressing needs. The government was not slow in recognizing the importance of taking prompt action in establishing a thorough system of education. Germany and England were called upon to furnish teachers. They came, and with their aid and advice schools, colleges, and universities were founded.

They found appreciative scholars eager and anxious to imbibe Western learning. Teachers and pupils worked hard. The Japanese knew they were borrowing, and the desire to become independent of foreign talent was but a natural one. Bright young men by the hundreds flocked to foreign colleges and univer-



YA SHIMA.

sities, mastered the foreign languages, became familiar with the modern methods of learning and teaching, returned to their native country, and gradually supplanted the foreign pioneer teachers. Very few of the foreign teachers remain.

The Japanese is not only a bright, hard-working student, but he also excels as an enthusiastic, pains-taking teacher. The courses of study in the colleges and universities are admirably arranged for the wants of the students. Demonstrations largely take the place of tiresome, didactic lectures.

The German language, now the prevailing foreign language in the universities, will gradually give way to the English. The English language is growing in popularity and is receiving more and more attention in the higher schools and social and commercial circles. Japan fully realizes that the United States is its nearest civilized neighbor, and its government favors our language. What is needed now is a closer relationship between the two countries in educational matters. The Japanese post-graduate students will find our many universities of high standing more practical and profitable places to finish their education than the universities of Europe, as the business relationships between Japan and the United States will become the most extensive and important.

On the other hand, I know of no country where our students of agriculture and landscape gardening could find better instruction and object-lessons than in Japan. And the time is not distant, and it is now, when our college graduates could take with advantage post-graduate courses in the various Japanese colleges.

Education in Japan is compulsory. Children enter the public schools when seven years of age and complete their elementary education in ten years. For

each pupil the parent or guardian pays a tuition fee of twenty-five sen a month. The average tuition fee at the universities is three yen a month.

Japan had a population of 40,453,461 in 1900, when the last census was taken. The early inhabitants of the southern part of the country were the Ainos and the Liou Kieus, who for centuries had become mixed with the Chinese. The primitive inhabitants undoubtedly descended from the Malay race. It is one of the purest people on earth as far as the admixture of races is concerned. The country was settled by emigrants from the continent of Asia during prehistoric time, as its people constitute a branch of the Turanian or Mongolian family.

The idea that the Japanese are a mixture of Ainos and Chinese is untenable. The Mongolian race is shown by the facial appearance and the shape of the skull. In size the Japanese correspond with the inhabitants of Italy and southern France. According to Baelz, the average height of the men is 5.02 feet and of the women 4.66 feet. There is very little tendency to obesity.

The men are muscular, quick and wiry, capable of undergoing great privations, and under trying conditions exhibit an endurance on an equal with any other nations, qualities which go far in the make-up of a good soldier. The women are small and of delicate build. The color of the skin varies from a yellowish-white to a brownish-yellow. The hair is jet black, the pupils black or hazel gray. The beard of the men is light. Both sexes are noted for the small size and delicacy of hands and feet. The eyes are the most distinctive feature of the face.

The narrowness of the eyeslit and its obliquity upward and outward is never absent. The Japanese

sculptor and painter never forgets to do justice to this part of the face, and if anything rather exaggerates this national anatomical peculiarity than otherwise.

The intelligence of the native Japanese is on a par with that of any of the most enlightened nations of Europe. Receptivity, the power of conception, and memory are present in the highest degree. Mathematics and business acumen are important factors in their mental traits.

The Japanese are particularly apt in accommodating themselves to new environments and in absorbing and applying in practice new ideas. In this respect they excel all other Asiatics. Among their conspicuous virtues must be mentioned patriotism, heroism, devotion to parents, respect for old age, esteem for the dead, sense of honor, courtesy, perseverance, hospitality, benevolence, and gratitude.

Cleanliness is one of their prominent virtues, in which they are not exceeded by any nation in the world. The bathtub is in every house, however humble it may be. If the house is small the tub finds a place outside, and it is not uncommon to see the bathers in it about sundown. The jinrikisha man takes his sponge bath as soon as he has finished his daily task.

The Japanese are careful in the selection of friends, but when such a relationship is once established they never forget or neglect their duty. The most prominent defects of their national character are manifested by distrust, a lack of strict adherence to veracity, vengeance, and sensual excesses.

There is very little drunkenness in Japan. I saw only one case of intoxication and that was in Tokyo during a feast day. Inordinate use of tobacco is also

very uncommon. Cigarettes and the pipe are the favorite ways in which tobacco is used. The pipe holds only enough tobacco for three or four whiffs. The women prefer the pipe to cigarettes.

There are no tramps in Japan and very few beggars. Abject poverty is seen here less frequently than in any other country in the world. The Japanese people are liberal toward the poor, and more especially toward the sick poor.

The women are modest, polite, and submissive. Unlike our new woman, they are satisfied with their sex and do not attempt to imitate the stern sex in dress and occupation. Our new women—and I am glad they are not many—have manifested a morbid desire to ignore and to a certain extent deny the sex belonging to them.

The showy shirt bosom, the high standing collar with or without necktie, are in imitation of the dress of the male in civilian attire. But some of them have gone further than this; they want to mimic a soldier in battle array.

Campaign hats, belts held in place with buckles displaying the screeching eagle and the significant U. S. shoulder ornaments, which for all the world might be mistaken by foreigners for insignia of military rank, are not infrequently seen on our streets, worn by women who would rather be men.

Some of our morbidly ambitious man-women want to usurp the sports that nature intended for men. She rides astride, she boasts of her skill in handling fire-arms and the sword, she wants to be a politician, a physician, a surgeon, a lawyer, a preacher, and would not object to the judge's bench or the governor's chair, or even the exalted position of president of the United States.

There are some things that men must do where she draws the line. She has no desire to chop wood with which to heat the kitchen stove; she has no special desire to follow the plow; she does not feel called upon to unearth the coal and precious metals; she has no particular fondness for the broom inside or outside of the house; the kitchen smell she enjoys better by proxy than in person.

This class of women must have exercise, but such exercise, if taken at all, is always expended in a most selfish way. The broom, the washboard, the rake, the hoe, the grass mower are magnificent gymnastic implements to develop muscular strength and bring color to the pallid cheeks, but those conservators of health are invariably turned over to those who need them the least—the hired girl and the hired man, who are well paid for keeping them from rusting.

Our new women have clubs where they spend the time that ought to belong to their husbands. The Japanese woman makes her home the club house for herself and her husband. The Japanese woman remains a woman in thought and action. The Japanese woman will gradually rise in social life, but for her own good and the good of the country it is to be hoped she will not imitate the example of her American sisters, who aspire in manner, dress, and occupation to take the place of men.

There is no better proof of the submissiveness of the Japanese woman than the ancient custom of staining her teeth as soon as she begins married life, a custom that still continues among the lower classes. A woman with black-teeth is a married woman. The process of staining the teeth follows the simple marriage ceremony. It is a disfigurement, the ugliness of which does not appear to be comprehended by the

bride. When the lips are separated the mouth appears like a black dungeon.

The injustice of such a sacrifice of facial attractiveness is very apparent when it is known that the husband can take as many concubines as he can support. It seems to me that if any inking is to be done as an ocular evidence of marriage, for reasons that require no further explanation, this horrible disfigurement should be inflicted upon the opposite party.

The Japanese shoe worn by those who have not adopted the European dress is the sandal of wood or rice straw. The wooden clog is made of the wood of the catalpa tree, which is cultivated extensively for this special use. The wood is very light and tough. A common pair of clogs costs from seven to seventeen and a half cents and can be worn for about four months. This kind of footwear has two great advantages: It makes no harmful pressure, and, as the clogs or straw sandals are always removed on entering the house, it prevents the ingress of dirt. The people who wear the sandals are free from ingrowing toe-nails, bunions, and metatarsal neuralgia.

The clogs are noisy things. Their clatter is heard in all the streets. The gait of the person wearing them is shuffling, bungling. The clatter of the wooden clog at a railway station when the people are in a hurry to board the train is something terrific, resembling the stampede of a herd of Texas cattle on a macadamized street.

As soon as the child begins to walk it receives its pair of tiny clogs and it is astonishing in how short a time it learns to scamper around with this so easily removable substitute for our costly shoe.

The substitution of the clogs for shoes is to be recommended to those of our people of both sexes

who believe that a small, bony, crippled foot constitutes an essential feature of personal attraction. If this were done the surgeons would find a decided decrease in their practice and income derived from treating ingrowing toe-nails, bunions, metatarsal neuralgia, and hammer toe.

Contrary to the customs of peoples living in the Orient, the Japanese do not waste much money for jewelry. Fine jewelry is made in Japan for the foreigners. The conspicuous display of costly jewelry is a relic of the barbarous age or in affectation of royalty. The Japanese people show their good sense in avoiding any such surface indications of wealth or social position. The perforation of the lobes of the ears to furnish a place for the wearing of an ornament savors of savagery and should never be inflicted upon children or consented to by a woman of good common sense. Beauty needs no ornaments, and the wearing of conspicuous ornaments by the homely is a vain effort to hide nature's defects. Nature dispenses beauty where it is proper free of charge. Could a necklace of pearls add to the beauty of a peacock? Would not ornaments of diamonds degrade a bird of paradise in the estimation of its own family? A shapely, handsome neck cannot be improved upon by loading it down with a pearl or diamond necklace, and the slender, dainty, nimble fingers were never intended for the wearing of rings, the carriers of disease, and obstacles to a free circulation and normal nutrition.

When Japan opened its doors to the outside world its people eagerly sought the advantages of Western civilization, but in a quiet, passive way have opposed the general adoption of the Christian faith. This is very natural. For centuries the people found peace and contentment of heart by following the teachings

of their original religion—nature worship. Nature has been so lavish in the disbursements of beauties in the birth of Japan that it is no wonder the people who came to inhabit it should deify it. The most widely diffused religion in Japan, if so it may be termed, is the Shinto, or Kami cultus (Kami-no-writsi), which signifies the way of the Kami. The word Shinto is of Chinese origin, meaning the way of the spirits.

This primitive religion corresponds with the religion of most of the Turanian peoples before Buddhism and Mohammedanism were known. According to the teachings of the Shinto faith, heaven is the seat of deity in abstract and is identified with the latter. Objects of worship are heavenly bodies, the elements, and all forces of nature, which are regarded as manifestations of the deity. The sun is the highest and most sacred object of worship. The souls of the deceased that have been of special service to the country or that have made themselves conspicuous for special virtues are worshiped under the name of Kami.

In the year 284 B. C. the religious views of the people were modified by Chinese influences, and the deities were divided into heavenly, worldly, and human. At the same time the virgin of Zin-mu-ten-no, the founder of the empire, and the reigning mikados (667 B. C.) were deified, and the number of Kami multiplied very rapidly and reached finally 3,132. To these were added, probably under the influence of the system of Lao-tze, a number of demons and demigods occupying in the minds of the people a position halfway between man and the genuine gods which were called Sjn-go-zin.

The Shinto temples are plain wooden structures, with straw, cedar bark or tile roofs, without many external or internal ornamentations. The external



BUDDHIST PRIESTS.

decorations consist of carvings; the internal, paintings of animals and flowers.

The principal objects of worship consist of a highly polished metallic mirror and bundles of strips of white paper symbolic of the purity of the soul, the body, and life. Purity is the main law of the Shinto teaching. Idol worship is not practiced in Shinto temples.

Buddhism was introduced into Japan from Korea in the year 552. This event proved of the greatest importance, as the Buddhist priests were active in the dissemination of Chinese customs. They also aided the resources of the country by introducing a number of new vegetables and flowers and otherwise developed a taste for art.

The new religion was readily accepted, but soon found opponents, and in 1623, for political reasons, it was made the state religion. It became influential, but was never popular. The fall of the Shogun dynasty in recent times has seriously impaired the influence of Buddhism. A sort of union between the Shinto and Buddhism was effected several hundred years ago and formed the Rijo-bu-Shinto, which became very popular among the lower classes.

The Shinto priests are married men and live in their own homes; the Buddhist priests are celibates and live in monasteries. In the Buddhist monasteries may be found nuns dressed much in the same way as the priests. Young childless widows are eligible for the sacred office. Both of the religions are divided into numerous sects without creating any harmful rivalry and without impairing their influence among the people.

The third religion is based on the teachings of Confucius and found its way into Japan from Korea toward the end of the third century. It never found a foothold among the common people.

The Catholic and Protestant churches have spent enormous sums of money and have brought many sacrifices in lives of faithful, devoted ministers of the gospel in their efforts to introduce the Christian religion. The progress in this direction has been very slow. The Shinto religion brings to the attention of the believers the wonderful works of nature and the memory of departed, distinguished dead. The devotees of Buddha find everywhere magnificent temples and shrines inhabited by gods the people can touch and see.

The Japanese do not expect too much from one god. They have gods who attend to their special wants. The number of gods they worship is not known to themselves. It is an easy matter to carve a rude image out of a block of stone and invest it with a special power. I will only allude to a very few deities that attracted my attention. The god that has power over disease I have already described, as well as the one who intercedes for the dead. In one of the temple shrines I saw a number of dolls surrounding a cold statue of stone with anything but inviting features. It was explained to me that this was the god endowed with the power to increase the family to the desired number. It was the god the childless women visited and worshiped. It was the god who could make them fruitful. He had evidently kept his promise in some cases, as was apparent from the tributes brought to him by happy mothers.

In another place we found a god who had to perform a delicate function. It was the god sought by young women who were tired of single life and who were anxious to find a husband. This god had a kindly face and undoubtedly inspired his devotees with confidence and courage when they sought his intervention. The tributes to his shrine are very few, possibly an

indication that the ardent prayers in many instances were unheeded, possibly in the cases in which the wish was granted the new wives wished that they could find another god who would undo what had been done. The few cheap tributes were the offerings of those who found what they asked him for and who were happy in their new station in life. I pitied this god, as he was bound to bring more misery than happiness to those who implored him to relieve them from the monotony of single life.

The first missionary work in Japan was done by St. Xavier, who was accompanied by two natives who were educated under him in East India, and Cosme de Torres, a priest, and Jean Ferdinand, a brother of the Society of Jesus. They were conveyed from India to Japan by a Chinese piratical vessel and landed at Kogoshima, August 15, 1549. They were kindly received by the reigning prince and their teachings were eagerly accepted by the natives.

St. Xavier was noted for his piety and devotion to his calling. As one of the reasons for his canonization was mentioned his miraculous power. Later the prince opposed preaching and further proselyting when he became a wanderer in the land he had chosen for his life-work. He went to Hirado and later to Hakata, and finally to the mainland, where he made his abode at Yamaguchi.

He was not tolerated here and traveled under the greatest difficulties in midwinter with all his belongings on his back and reached Yedo in 1550. His efforts here proved in vain, and he returned to Bungo, from whence he sailed for China, November, 1551. Although he was in Japan only two years and a half, surrounded by many adversities, he left an impression which has never been effaced. He died on

his way to China, at the little island, Sancian, December 2, 1552, aged forty-six years. His body now rests in the Archiepiscopal church at Goa. The life-work of this devoted, pious priest foreshadowed the difficulties encountered in the Christianization of Japan.

Catholics and Protestants have vied with each other in bringing the good tidings of the gospel within the reach of all, but the progress has been slow. The government does not oppose the work, but the people are slow in accepting the new faith. To convince the mass of the people of their religious error and to inculcate the Christian faith will require years of toil and self-denial on the part of those who bring the new tidings. The people will watch carefully the conduct of the foreigners who reside in and who visit their country, and whenever the people find that their practice corresponds with their teachings, they will not be slow in accepting the living God in place of their idols and nature worship.

The Japanese is a lover of nature and art. This keen appreciation of the beautiful is inborn and affects all classes, all ages, and both sexes alike. It is a national trait developed to a degree far beyond that of any other nation. The poorest peasant must have something artistic about his modest home to make it attractive.

The wealthy do not load their houses down with costly pictures and works of art; they make their wealth serve to delight the outsiders by cultivating a flower garden and in laying out park-like grounds that please the eye of the passer-by. The works of art in the houses of the rich are not many but of the choicest sort, and every week they are changed or re-arranged, thus relieving the monotony that inhabits the private picture galleries of our multi-millionaires.

From their infancy children imbibe a love for art by their very surroundings. The cradle is unknown. Like the baby monkey the infant spends most of its time on the back of its mother, grandmother, or older sister. It is one of the sights in Japan to see these babes sleep on the backs of their mothers, while the latter attend their household duties, pick tea or work in the rice fields. With its head hanging backward and the sun shining upon its face the little thing sleeps on until a sense of hunger brings it to consciousness.

The child from the time it opens its eyes sees the sun, the moon, the stars, the trees, the flowers, and grows up in the open air in close touch with nature's works of art. This early and constant communion with nature's creative and decorative powers is shown in every picture painted by native artists. Flowers, trees, birds, and insects are their favorite models, and no other artists excel them in imitating these objects with a degree of perfection within reach of human skill. No wonder the Japanese are the best landscape gardeners in the world. The first thing the native landscape gardener has in view is a due regard for the precious soil. Not an inch of ground is left out when he makes his plans. Trees, flowering bushes, and flowers must therefore take their appropriate places. Every corner of the plot has its attraction. To utilize the surface to its utmost extent the walks are usually curved, no large flower beds, but here and there a flowering plant or bush where it adds most to the beauty of the picture. If the plot is too small for large trees, dwarfed trees in flower-pots must constitute the park.

The Japanese, islanders as they are, are fond of the sight of water. They love the music of the babbling brooks and the mirror-like, placid lakes. Wherever it

is possible the landscape is beautified by rivulets, lakes and fountains. If the lake is not larger than a washbowl in a diminutive ground it nevertheless is a lake and as such serves its purpose to please the eyes of the happy inmates of the adjacent cottage.

If the artificial lake is a little larger than a family table it has its islet, toy bridges of artistic construction, toy sampans, water plants, and flocks of Liliputian geese, swans, and ducks. If it is large enough to be inhabited by fish it is stocked with the gayly-tinted goldfish or the homely carp. The fish in an artificial lake in a Japanese garden are to be envied for the life of luxury they enjoy. The best the house can furnish they receive. When meal-time comes they assemble at the regular feeding ground, and when the delicate morsels are thrown in, a lively scramble ensues and continues until all of them have appeased their hunger, when they move about lazily in the sun-warmed water until a desire for the next meal revives their energies.

The surface of the ground is often increased by little artificial mountains and grotesque rocks. Landscape gardening is not limited to large cities; it is well represented in the smallest peasant villages and around isolated farmhouses. High, beautifully trimmed hedges, trained and dwarfed trees, a few exquisite flowers, an isolated rock nursing a pine tree, a narrow, winding path are here the manifestations of the artistic tastes of the plebeian farmer.

Look where you will in Japan and you will find satisfactory evidence in support of the statement that the Japanese are the best landscape gardeners in the world.

The Japanese love, almost worship, trees. The public highways are lined on both sides with trees that

afford protection and comfort in summer and winter. A department of forestry has been established in connection with the College of Agriculture, where young men receive a thorough education in the science and art of forestry. These men after their graduation receive government positions and spend their time and energies in protecting forests and in replenishing them where they have been lost.

Young trees are raised from seeds and are planted in places where they are most needed. In this manner bald mountain sides and tops are again timbered, in the course of time furnishing not only an abundant wood supply, but by attracting and absorbing rain, serve as safeguards against droughts and floods.

The Japanese fully comprehend the meaning of the German saying, "Was ein Hacken werden will muss sich bei Zeiten krümmen." The ornamental trimming of trees is understood nowhere better and is nowhere more carefully practiced. If they want a tree to live for many centuries, they curtail the ambition to grow upward and encourage the lateral growth of its branches. A tree trained in this manner is symbolic of long life. Such low-branching, veteran pine trees can be seen in the courts or background of most all of the ancient temples. Under the most careful management trees are made to grow into most fantastic shapes.

In the Kiukukuji garden at Kioto is a pine tree representing a Japanese junk under full sail, the trunk of the tree is the mast, its branches have been shaped into sails, bowsprit, and rudder. Other trees represent monkeys, birds, umbrellas, etc. The Japanese artist directs the growth of the trunk and branches and the tree does the rest. The Japanese are as kind to the old trees as they are to their aged, infirm, and sick.

The art of dwarfing the giants of the forest is peculiar to Japan. Like so many other things it was borrowed centuries ago from China. It has become a lost art in the country in which it had its origin; it has flourished and has been much improved in Japan. To see a pine or maple tree one hundred and more years old less than two feet in height and show all the outward appearances of great age is something that can only be seen in Japan. The same can be said of the dwarf pomegranate, quince, olive, pear, and apple trees that blossom and bear fruit in a flower-pot of small size.

The art of inhibiting the growth of all kinds of trees at a certain stage and holding them under the control of the will of the gardener without changing their nature is one that is difficult to explain. Mr. Beumer, the most prominent and successful gardener in Yokohama, explained to me that it depended entirely on the quantity of soil to which the tree is limited. Many of these little old trees live and thrive in their way on a handful of soil in a flower-pot or in the cavity of a rock not larger than a fist.

According to Mr. Beumer, a frequent change of soil is fatal to the tree. The soil should not be changed, that is, the tree should not be transplanted oftener than once in three or four years.

These Liliputian trees are ornamental in the highest degree, and they can be seen in the small houses and yards of the poor as well as in the mansions and the park-like gardens of the rich. It is said that when these trees are transplanted into the free soil they resume their growth and assert their inherited dignity. It is also stated that many experiments have been made with them in different foreign countries, but invariably without success. It would be well for our gardeners to inquire into this part of their occupa-



MAPLE TREE IN THE CENTER OVER 100 YEARS OLD.

tion and ascertain to what extent dwarfing of trees can be carried in our own country, as such pigmy trees serve as the most attractive ornaments for room, yard, and garden alike.

Japan is a land of mountainous islands. Broad valleys are few, and most of the farming has to be done on terraced mountain sides and narrow gorges. The rich water supply from the mountains is used for irrigation, failure of crops from drought is therefore almost unknown. The system of irrigation is perfect and the verdure of the fields is not impaired by lack of rain.

The Japanese farmer is sure of his annual crop. There is no country in which the arable soil is better cared for and from which more is extracted by the toil of man. Every foot of ground is under high cultivation. The immense rice fields, divided into small beds by the irrigating ditches, cover the surface with a carpet of pale green that is most pleasing to the eye. The tea fields are equally refreshing. The shrub not more than two feet in height bearing the aromatic leaves is carefully trimmed into round or oval bunches or in long rows.

The tea plant requires less moisture than the rice and consequently is cultivated on more elevated grounds. The rice fields are surrounded by a row of beans, the margins yielding a rich harvest of one of the important food supplies of the country. Japan raises an enormous quantity of rice every year, but little is left for export, as the peasants and poorer classes subsist largely on this cereal. The atrophic, imperfectly developed jaw of the Japanese people indicates the kind of food they live on. Boiled rice and fish require little or no mastication, in consequence of which the jaw has failed to develop to its average size.

As the result of this atrophic condition of the lower part of the face, the upper jaw and its teeth have become preternaturally prominent. Tough beef and chewing gum would in less than a century remedy this facial defect.

The Japanese farmer is a hard-working man and is joined in his labor in the rice and tea fields and vegetable gardens by his faithful wife and devoted children. The soil is turned with the spade. The rice is cut with a scythe that resembles a large sickle fastened at right angles to a straight pole. The products of the farm are carried to their destination on the back of the laborer. The frugality of the farmer limits his cash expenses to a minimum, so that a small area of ground serves to support a large family. This explains the absence of abject poverty in the land. Indigo, millet, sweet potatoes, sugar cane, bamboo, and vegetables of all kinds are the other most important products of the Japanese farms.

The culture of bamboo is an important and lucrative one. In five years this plant reaches the desired size for the market. Out of the bamboo are made houses, bridges, baskets, furniture, toys, etc., furnishing useful employment for thousands of skilled women and men. The most important of the Japanese fruits are peaches, cherries, apples, pears, grapes, and persimmons. The fruit lacks the rich flavor of the products of our orchards. The pear is a compromise between a pear and an apple. In its appearance it resembles a russet apple. It is watery and tasteless.

Cattle raising is in its infancy. The Japanese do not know the taste of milk, butter, cream, and cheese. The few cattle that are seen are raised to furnish meat for the foreigners. The farmhouses are small, usually a single room which serves as kitchen, dining-room,



THE BEAST OF BURDEN IN JAPAN.

and dormitory in turn, but can, if necessary, be divided into rooms of various size by removable paper partitions.

By hard work, combined with utmost economy, the Japanese farmer earns an honest living, but has no chance to accumulate wealth or to live a life of luxury. The sparrow is his great enemy. The waving rice and millet fields serve as attractions for the little thieves. To kill or scare them away with firearms is too expensive a procedure. The farmer makes an effort to protect his fields against this shrewd and aggressive bird by making use of the most terror-like scarecrows. Old clothes, old hats, and umbrellas are placed in the most conspicuous places to serve their purpose. Bright strips of tin suspended by a string from a pole and in constant motion is another way by which fear is created. The sparrow is a careful observer. He looks at these things with fear at first, but "familiarity creates contempt," and sooner or later when hunger prompts him, he fills his greedy little gizzard in the nearest cream-yellow rice or millet patch. The country roads are in excellent condition, and in many places hemmed in by high and beautifully trimmed hedges.

The Orient will in all probability be the seat of the next great bloody contest. The preludes to it have already taken place. The two great nations, Japan and Russia, will be the contending armies and Manchuria and Korea will constitute the *casus belli*. For years Russia has made use of diplomacy to gain a firm foothold upon the Pacific coast. Japan is overcrowded; she must have a convenient outlet for the excess of her population.

For centuries Japan has been upon the most intimate terms with China and Korea. The Chinese and

Koreans prefer the Japanese to the Russians. They have more confidence in the Japanese than in the Russians. Russia is virtually in possession of Manchuria to-day. Japan will claim Korea. The Japanese interests in Korea are extensive. She owns the only railroad in Korea, and is rapidly settling the country with her subjects.

Japan is encouraging emigration to Korea in every possible way. It is stated that at the present rate the emigration to Korea from Japan numbers 20,000 every year. Korea is being Japanized rapidly. Japan is desirous of dominating the Orient. So is Russia. It is questionable whether the claims of each country can be amicably settled.

From what I have seen and heard in Russia, China, and Japan, there can be but very little doubt that a desperate war between the contending nations is only a question of time, and it seems to me that that time is not far distant. Both nations have for years been making preparations for the expected conflict. Russia has fortified her Pacific ports in a most formidable manner, and Japan has followed her example promptly in doing the same. The war will be a bitter one and the world will see for the first time modern warfare demonstrated on a large scale. Unless foreign nations interfere it will not be difficult to forecast the result.

Japan, by her preparedness, energy, and proximity to the seat of conflict, will win in the beginning a succession of battles. Her powerful navy and well-disciplined troops will operate in harmony and concentrate action. Then will come the reverses. The Russian soldiers will be hurried to the scene in countless numbers, and the Siberian winter will be the strongest ally. Eventually Russia may win, but she will be made to pay dearly for her victory.



PLOWING IN JAPAN.

Japan has been extravagant in establishing her powerful navy and well-equipped army, and the present financial embarrassment may hamper her in prolonging the war, but when that time comes her patriotic citizens will bring sacrifices such as never have been heard of before in order to save the honor and political influence of the country. War, cruel as it necessarily must be, will be conducted on the most humane principles on both sides, and eventually victory will be on the side that can prolong the contest longest.

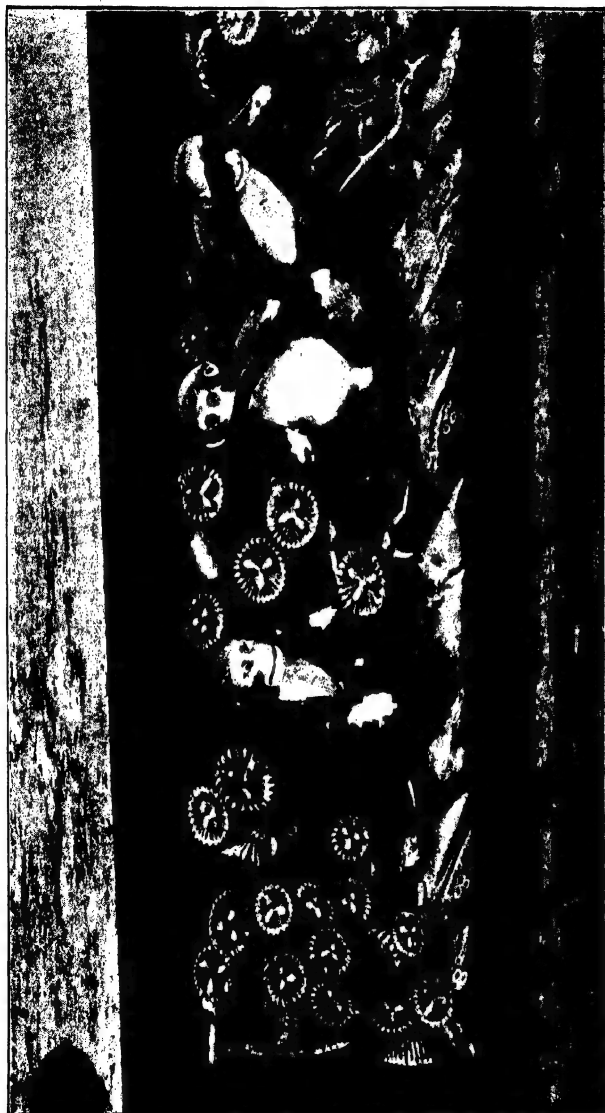
CHAPTER XVI.

TWENTY DAYS IN JAPAN—RAILWAYS—RESTAURANTS AND EATING
—THE JINRIKISHA—THE MOUNTAIN CHAIR—MOJI AND ITS
HARBOR—BLIND HEALERS—A GRAVEYARD—SHIMONOSEKI—
AWKWARD AMERICANS—COALING—THE INLAND SEA—KOBE
—NUNOBIKI FALLS—THE GREAT BUDDHA—AMIDA—A SHINTO
TEMPLE—OSAKA—AMUSEMENTS—AN OLD TEMPLE—MODE
OF WORSHIP—THE CASTLE OF HIDEYOSHI—MILITARY SCHOOL
—KIOTO—MANUFACTURES—TEMPLES—THE GREAT BELL—
THE PALACE—A BOATING TRIP—LAKE BIWA—AN AGED TREE
—THE GEISHA DANCE—WRESTLERS—GARDEN AND TEA-
HOUSE—FROM KIOTO TO YOKOHAMA.

*Those who have been before us have done much,
but have not finished anything; yet they are to be
looked up to and worshiped as gods.—Seneca.*

TWENTY days is too short a time in which to see Japan, but this was all our itinerary allowed. Consequently the routes were carefully mapped out beforehand by Professor Brower, and a guide was engaged for nearly the entire trip, because if time is an important element, the employment of a reliable guide is absolutely necessary. In every large city there are licensed guides who charge two and a half yen per day for their services and fifty sen for every additional person that accompanies a party.

Our trip through the empire was not attended by any mishaps. The weather on the whole was pleasant, the temperature never exceeded 85° Fahrenheit, the nights, with few exceptions, were delightfully cool, and occasional showers settled the dust. Little traveling on foot was done, as we were desirous of covering as much ground as possible in the limited space of



SAN-YEN.
Hear not, Speak not See not
(Nikko.)

time. The steamer, railway, jinrikisha, and mountain chair were the means of travel from place to place.

All of the Japanese railroads are narrow gauge. The first and second-class carriages are nearly alike as far as comfort is concerned. The upholstered seats rest against the walls all around with the exception of a small space left open for the door. This arrangement leaves a narrow, open space along the center of the car. The third-class cars are divided into compartments and are provided with cane seats and wooden back-rest. Dining cars are only in use on trains that make long trips. There are no station restaurants, but at all principal stops lunch venders announce their wares in a singsong voice. If a sale is made the transaction usually takes place through the open window.

The Japanese railway lunch, or as it is called in this country, tiffin, is served in an extremely neat way. The dishes, containing several kinds of cold meat, fish, and rice are placed in a square box made of cedar wood, which also contains the grasping and handling implements of solid food—chopsticks.

I was much amused one day in watching a general of high rank eating his lunch. He was not only an expert swordsman, but knew also how to manage those two little sticks in conveying all kinds of food from his lunch box into his capacious mouth. Everything went well until he came to eat grapes. The fruit of the grape is round and slippery, and one of the most rebellious things to manage with chopsticks. If I had attempted to eat grapes with chopsticks I would have stabbed the round body with one stick and disposed of it in that way, but it is against table ethics in Japan to use the chopsticks in any other way than as grasping implements—that is, as substitutes for the fingers.

This the general did, but the treacherous things instead of staying between the sticks would slip away, tumble on the floor, and roll over the dusty carpet until they found a final resting-place in some niche or crevice. Three or four times this mishap occurred, but the battle-scarred veteran was not discouraged. He applied himself to the task with more earnestness and skill and finally succeeded in conveying the balance to the desired destination.

All of the trains were usually crowded, especially the third-class coaches, showing that the Japanese people are fond of travel. The value of the Japanese soil is shown by the narrow strip of land the railroads claim, barely enough for the narrow track; the margins of the fields encroach almost upon the ties of the road-bed. The railway stations are small wooden structures, but are well arranged for the safety and comfort of the passengers.

The jinrikisha I have described in a former chapter, written at a time when I had only a limited experience with this vehicle and the man-horse. I then considered traveling by this method devoid of danger, but a more extended experience has taught me differently. I am free to confess that I have become a perfect coward in every carriage drawn by a horse, as it has been my misfortune to have had more than the average experience in runaways, which has undermined my confidence in horses. I believe every horse gets fits of passion invoked by causes from within or without that will make the animal irresponsible for its actions. For this reason, if for no other, I felt more secure behind the man-horse, because I was satisfied that an accident by a runaway was out of question. Another great advantage of the man-horse over the real horse is that a whip is super-

fluous. The man-horse knows when it is proper to walk, trot, or gallop, and the rider must depend entirely on his judgment, as urging of any kind on his part would be worse than useless. The only thing I know of that would increase the speed of the man-horse is a shining silver coin of respectable size; but you must display this before his eyes before you begin the trip. I can state with positiveness that a sober jinrikisha man never thinks of running away. Such an imprudence would cost more physical labor than he is willing to perform, besides it might damage his cart, which he values much higher than his temporary customer.

Accidents, however, are liable to occur in all walks of life, and jinrikisha riding, safe as it may appear on first sight, constitutes no exception. I had an opportunity to witness two such accidents, in one of which I unwillingly took part. After ascending a mountain our short train of jinrikisha reached a level plateau. The jinrikisha men felt that this was the right place to demonstrate their speed. In the race my carriage was the second one in line. The even trot was changed into a lively gallop. Behind the first jinrikisha was a pusher, who did all he could to assist his mate in front between the shafts.

On we went over the perfect road and through the subalpine forest with railway speed, when the man behind the first jinrikisha stumbled and fell. My leading man struck the prostrate body with the force of a cyclone, fell upon it, and but for the foresight on my part to grasp a firm hold on the vehicle with both hands, I should have completed the human pile in front of my jinrikisha that so suddenly came to a standstill with a sharp forward inclination. Torn trousers and some bruises summed up the damage done by the accident.

The second accident occurred in Tokyo. Late one evening we returned from a tour of sightseeing. Our way led through a narrow, crowded street. Jinrikishas were going at full speed in both directions. One of them barely missed the hub of my vehicle, and struck the carriage behind me. A loud crash and a heavy tumble announced the collision. I looked back to see one of the jinrikishas demolished and both horse and rider stretched on the hard, macadamized street near the curbing. When you take your first jinrikisha ride bear these accidents in mind, and if you are not independent financially take out an accident policy before you make the start.

The jinrikisha is too high for its width, and upsetting takes place on the slightest provocation. If the man loses grasp of the shafts from any cause the vehicle will almost of necessity turn backward, with the inevitable result of throwing the rider upon his head. Any one who has done much jinrikisha riding and who is not afraid of the horse will gladly exchange this man-vehicle for our much more comfortable buggies.

The chair which is used in ascending mountains is a large, comfortable cane-bottom chair suspended from two strong bamboo poles and carried by four men. The carriers who do this kind of work are powerful, sinewy little mountaineers, who understand their business to perfection. They perform their arduous work cheerily, keeping step to a monotonous but well-timed singsong. The shifting of the poles from one shoulder to the other is done with an expertness truly astonishing. This method of mountain climbing is pleasant and recommends itself especially to ladies and persons suffering from defective lungs or a weak heart.



BLIND SHAMPOOER.

We arrived at Moji from our side trip to Shanghai, Monday morning, September 9th, and were detained here long enough to take on board 2,000 tons of coal. Moji is a great coaling station, as it is near the largest coal mine in Japan, which makes it a formidable rival of Nagasaki as an anchoring place for foreign vessels.

The harbor of Moji is landlocked and capacious, and is protected in a way that would make it difficult to enter by any naval force. Both the inlet and the outlet are strongly fortified, there being no less than seven forts scattered in the mountains of the vicinage. In our walk about the town, we saw many heavily-laden ammunition trains wending their way up the steep paths to the forts, and an equal number of empty ones coming back.

The strong currents running in the outlet and inlet of the harbor at certain points of the tide constitute a great additional natural safeguard to Moji against hostile invasion. I have seen a strong-engined steamboat make hardly a hundred yards' progress in half an hour's effort against the current.

Moji is an old-fashioned town and was nothing more than a village for fishermen until 1891, when it was selected as the northern terminus of the Kyushu railway. In visiting this place I was attracted by signs on the front side of a native hut. There were two signs—one of them represented the bare back of a man with a number of white spots on each side of the upper segment of the spine; the other depicted a woman lying on a couch undergoing the process of ancient massage. I was anxious to make the acquaintance of the healer by ancient methods and entered his sanctum. I found a blind man squatting upon a mat and dressed in the customary flowing long gown. His wife, a comely native woman, came to our relief in

realizing the object of my visit. I presume she took it for granted that we were in search of medical relief, and soon produced acupuncture needles long enough to make my blood curdle in looking at them. The treatment was to cost thirty-five sen or seventeen and a half cents. None of us felt inclined to undergo such treatment, and she volunteered to have it demonstrated on her own person for the customary fee. Undoubtedly she has made a martyr of herself on many occasions to satisfy the curiosity of visitors, but I did not feel inclined to test her devotion to her numerous family in such a way and compromised by purchasing the torturing needle for the same amount of copper. This class of healers is as ancient as Japan itself. Besides the acupuncture needle these curers of all ills have only one more remedy at their disposal—the moxa. A cotton-like inflammable material obtained from the mugwort, is rolled into a ball the size of a nickel, which is placed over the painful place and ignited. The burning process is carried to the extent of destroying the superficial layers of the skin and the number of moxa will depend entirely on the extent and severity of the pain or the endurance of the patient for fire. I saw dozens of men, especially jinrikisha men, with white spots on different parts of the body—scars following the use of this ancient method of producing counter-irritation. If my blind medical acquaintance in Moji will keep his long needles clean and away from the more important organs of the body and will not continue his firing process too long, he will do no harm and can pocket his small fees with a slumbering conscience.

Moji has one fair modern hotel, the Ishida-ya. The ancient temple overlooking the Strait of Shimonoseki occupies an ideal location, surrounded by gigan-

tic trees and protected behind by enormous rocks. Two cranes, the sacred bird of Japan, in a large cage on the side of the temple, remind the visitor that he is standing on sacred ground. The other temple on the opposite side of the city is a new structure, the gift of a wealthy, enthusiastic admirer of Buddha, and accessible only by stone stairs long enough to test seriously the breathing capacity and muscular strength of the visitor.

We crossed the harbor on a sampan a short distance above the strait to Shimonoseki, which is an ancient and genuine Japanese town, located on the harbor directly opposite Moji. The sampan man landed us far below the city, as the sharp current carried his craft in that direction in spite of his heroic efforts to make a more direct passage. At the landing-place the water was shallow, and we were obliged to construct a temporary bridge connecting the sampan with the shore in order to make a dry landing. On reaching the shore we had to scramble up a high embankment to reach the road leading to the city.

On our way to Shimonoseki we passed an old graveyard, the city of the dead. It is perhaps not correct to call this and similar places in Japan graveyards, as the dead bodies of most of the common people are cremated, and only the ashes are deposited in these sacred grounds. The monuments holding these remains almost touch each other. Each family has its own burial spot, and in case of cremation all that is necessary is to remove the headstone and add the ashes to those of the ancestors of centuries ago. It is in the burial grounds the visitor is vividly reminded of the estimation in which the dead are held by the successive generations. In front of the monuments of families still in existence we found a stick of bamboo,

taking the place of a flower-pot and holding a fresh branch of the sacred tree. Some of these monuments are weather-worn and covered with moss, but the survivors of the family pay their respects to their ancestors every few days and replace the branch with faded leaves by a fresh one. The monuments which lack this attention contain the remains of extinct families, or perhaps the descendants have emigrated or settled in a different part of the country. The reverence manifested for the dead is a striking Japanese virtue and cannot fail in making a deep impression on the travelers who visit the silent graveyards of this country. Inscriptions and the rude figure of some distinguished member of the family are often found carved upon the simple shafts of solid stone.

Shimonoseki is a shipping place of considerable importance. The town consists largely of a single narrow street about two miles in length following the harbor. The chief products are tobacco and cutlery. It was in this town we had our first and only experience in dining Japanese fashion. We patronized the most popular tea-house. As we approached the house we were met by the proprietress and servants welcoming us by bowing several times low and gracefully. The next thing on the program was to remove our shoes, after which we walked up a flight of stairs in our socks and were led into the largest room, the floor covered with mats. No table, no chairs. The two waitresses, in native costume, who were to serve us, did all in their power to please us and brought in cushions which had done duty for several generations on similar occasions. There was no alternative but to do as the Japanese have been doing for ages and some are still doing, to limber our legs and squat on the cushions the best we could. I was not very anxious to set a precedent for

my companions in this matter and was never more willing than now to learn.

The man who knew most about Japanese customs showed us how. He reached the cushion with the right part of the body, but it was difficult to say whether it was by a fall or by an intelligent use of his voluntary muscles. From what I saw and heard I think the performance was partly voluntary and partly passive. I would advise any one who intends to visit Japan and who is desirous of imitating this ancient Japanese custom, to practice how to sit on the floor and how to get up, at home without spectators, before he appears in public in a Japanese tea-house. The Japanese are slender people and their legs are like rubber, besides they are trained to this custom from early infancy. It is different with the heavier and more clumsy and stiff American accustomed from childhood to the high chair and swinging rocker. It is needless to say that none of us sat like the Japanese do, and our awkward and at last painful position afforded no little amusement for our attentive waitresses.

Receptacles for the reception of the ashes of burnt tobacco were the first things brought into the small circle guarded by four squatting doctors. Next came saké served in doll dishes which could not hold more than two teaspoonfuls, followed by sliced apples. About eight courses of sweets, eggs, fresh fish, and dried fish followed. The viands were enjoyable; the sitting position almost unendurable. When, from pressure, one of my legs commenced to tingle and threatened to go to sleep I would lean toward the opposite side until the same symptoms made their appearance, then back again, but finally both limbs were in the same critical condition, and it became a

serious question whether they would do service on assuming the erect position. I utilized the first opportunity moment when the servants were absent to make the trial. It was no easy task. When with difficulty I got to my feet again, I made up my mind that the next time I had to take a meal at a tea-house I would insist on having a table and a chair, as I had had all the experience I wanted in dining in a squatting position.

After visiting the two temples in the city we returned on a sampan to our steamer, the "Kaga Maru." The "Kaga Maru" needed coal, and for this purpose anchored in the harbor at Moji. In less than thirty-six hours her bunkers were quite full with 2,000 tons of this fuel. Soon after the anchor was thrown, four barges heavily loaded with coal and propelled by sculling oars came up along the ship's side and were securely fastened in the desirable places. The barges were accompanied by a small fleet of sampans carrying coolies, who were to do the work. Among the mass of people who boarded the barges and the steamer were a number of women. The work commenced immediately. A framework of poles supporting steps about four feet apart was constructed between each barge and the ship. Hundreds of baskets holding not more than half a bushel were distributed and the men and women took their places. It took twenty-two persons on each barge to handle the baskets from the barge to the dumping place. As soon as a basket was filled it passed from hand to hand until it was thrown empty to the place whence it came. The speed with which these baskets made their rounds was something remarkable. Almost as quick as one can count they were whirled from one person to another.

It was a busy scene, enlivened by the chatter and laughter of the motley crowd. The women, some



HARBOR AND CITY OF KOBE.

of them mere girls, did no lifting, but they shot basket after basket with lightning speed over the smooth boards on deck of the ship and returned the empty baskets to the barge with a certainty of aim that could only have been acquired by long experience. The handling of so much coal in such a short time by hand labor is typical of Japanese methods. It is the large number of people in harmonious action that accomplishes tasks which astonish the Westerners. It is the beehive of humanity that takes the place of expensive complicated machinery here. The substitution of machinery for hand labor would be the death knell of Japanese prosperity.

The anchor of the "Kaga Maru" was lifted at noon Tuesday, September 10th, and she shot through the Strait of Shimonoseki into the Japanese inland sea. In a village near the outlet of the strait Li Hung Chang was shot some time after the war of Japan with China. The distinguished Chinese official survived the injury and, until his death, carried the ball that was intended to terminate his life. The would-be assassin was convicted and sentenced to a long term in prison, where he remains at the present time suffering the penalty of his crime. The inland sea is a body of salt water lying between the Main Island on the north and the islands of Shikoku and Kyushu on the south.

It is a beautiful sheet of water inclosed by green, rugged mountains, and its shores fringed with fishermen's villages. It communicates with the open ocean by two straits and two passages. The water is dotted with islands, many of them under cultivation. Some of the mountain sides are terraced almost to the top. The islands in the sea and elsewhere in Japan are so numerous that their exact number probably never has

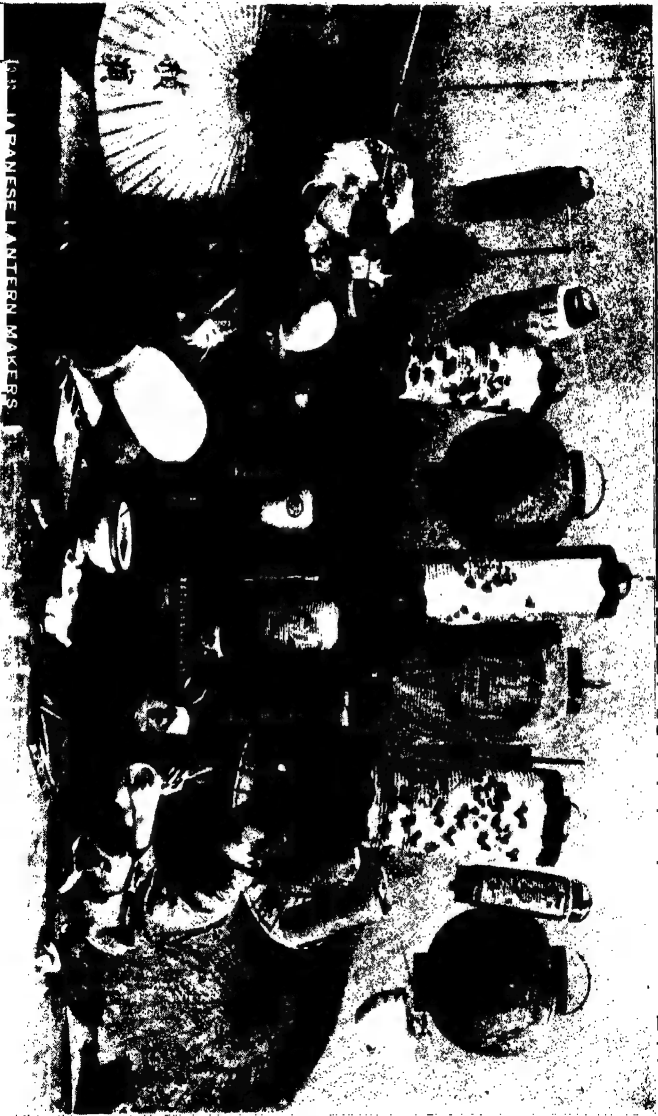
been known, and it must have taxed the vocabulary of the Japanese language severely to find names for them all.

The view afforded by the inland sea and the surrounding mountains and the many islands on entering it through the Strait of Shimonoseki is superb. The waters are studded with fishing and trading junks. At one time I counted from the deck of our vessel no less than 110 sailing ships of all sorts. This is the place for a quiet sea voyage, as the water is always smooth. The sea expands and contracts at different points, disclosing new panorama-like views as the ship cleaves its way through the smooth, light green water. At Iyo Nada this channel is so narrow as to afford just enough space for two ships to pass each other. The inland sea is a romantic one and could furnish ample material for the pen of poets who take delight in interpreting the beauties of nature in rhyme.

We arrived at Kobe at seven o'clock Wednesday, September 11th. The custom-house officers at this port were the most lenient we had encountered so far. We proceeded at once to the Oriental Hotel, an excellent modern house, with large, airy rooms and luxurious table. The city is located on Osaka Bay, with a background of mountains of considerable height lightly timbered to the summits. Its harbor is capacious and is sought by ships from all parts of the world, as Kobe is noted for the purity and dryness of its air and its nearness to many easily accessible places of interest.

The present population is 70,000, of which number 2,000 are foreigners. The settlement contains many large business houses and comfortable homes. The streets are in excellent condition, but without sidewalks. This city was opened to foreign trade in 1868,

44. JAPANESE LANTERN MAKERS



and since that time it has grown steadily and has become a commercial and manufacturing center. Foreigners are permitted to lease land and houses. The Kobe beef, which comes from the Tajima Province, is famous throughout Japan. One of the specialties of the Kobe market is the pretty basketwork which is made at Arima.

Hyogo, a large town, is separated from Kobe by the Minatogawa River, the banks of which are lined by tall pine trees. These shaded banks have been laid out into a promenade which leads to the Shinto temple erected in 1868 to the memory of Kusunoki Masamune, a brave and loyal warrior. As the water at the head of the river is used for irrigating purposes the river-bed is usually dry, except after heavy rains. The river-bed has been filled in with sand and stones washed down from the hills by heavy rains to such an extent that it has been raised above the level of the surrounding country, and much labor and money have been spent in the construction of the embankments to prevent overflow during the rainy season. The points of interest that attract the visitor the most are the Nunobiki waterfalls, the Daibutsu, the Shinkoji temple, and the Shinto temple at Ikuta.

The Nunobiki Falls are only a short distance from the settlement, in a deep mountain gorge and accessible by an excellent foot-path. The height of the lower fall is forty-three feet, that of the upper eighty-two feet. Large monkeys sometimes make their appearance in this neighborhood. The lower fall is viewed from a tea-house, where photographs and curios are offered for sale. These falls do not impress the visitor in themselves, but are made beautiful by their environments, the cool air, the steep mountain sides heavily timbered, the gigantic trees, the rocks, pools,

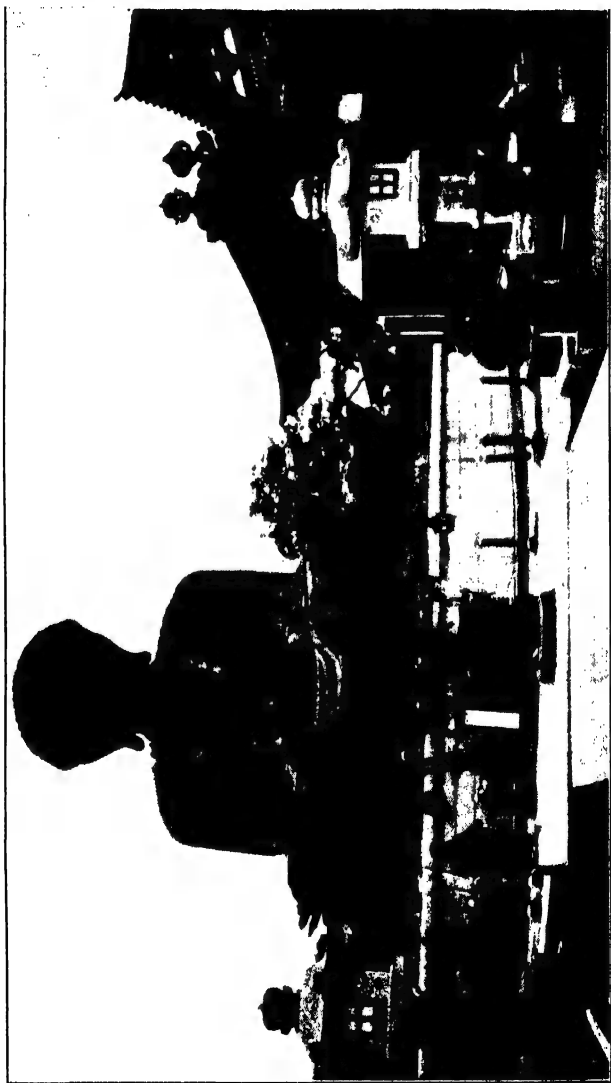
and little cascades in the bed of the stream of mountain water.

The Daibutsu, or great bronze Buddha, of gigantic proportions, was erected ten years ago. It is forty-eight feet high, and eighty-five feet around the waist, and remarkably well proportioned. It is a splendid specimen of the glyptic art. The expression of the face is calm and thoughtful, the forehead large and well formed. A striking anatomical defect is the excessive size of the ears, which are all out of proportion to the size of the face and cranium. The interior contains many objects of art and gifts to Buddha.

In one of the courts of the Buddhist temple Shin-koji, near Nofukuji, is a bronze image of Amida, a magnificent specimen of art. The face of this image is expressive of peace, innocence, contentment, and happiness. A bronze corona above and behind the shapely head imparts to the image the appearance of a Madonna. The pond in front of the statue, formerly a lotus pond, is now neglected, a disgrace to those in charge. The grove of giant cryptomerias and camphor trees, which stand guard for the image and which surround the adjacent temple, gives the place an air of solitude and sanctity.

The Shinto temple of Ikuta stands in a grove of cryptomerias and camphor trees only a five-minutes' walk from the settlement. This temple is an old one and is adorned by many specimens of ancient carving. The goddess worshiped here is Waka-hirume-no-Mikoto, adopted by Empress Jingo on her return from the victorious expedition to Korea. Prayers to her in seasons of drought and of floods are claimed to be invariably answered.

Osaka is an hour and a half distant from Kobe by rail. This is the Chicago of Japan, being the greatest



DAIBUTSU AT KOBE.

commercial and manufacturing center of the empire. Crowded streets and smoking chimneys indicate its great activity. We arrived in the city in the evening over the Tokaido railway and at once made our temporary home at the Osaka Club Hotel, ten minutes from the railway station. Few foreigners reside in this city, and the visitor has there an opportunity to make a profitable study of Japanese life and industries.

We stayed at the Osaka Club Hotel, which is comfortable, but the English language has not as yet permeated its walls to any extent. All of the modern hotels in Japan charge from six to eight yen per day, including room, service, and board. The Japanese waitresses and chambermaids have disappeared, and their places have been filled by men. Female help is now restricted to tea-houses, hotels in small cities, and mountain and watering resorts. This change has undoubtedly been made necessary by the large influx of foreign visitors. The Japanese waitress and chambermaid is a modest, polite servant, always anxious to please the guests assigned to her care.

Osaka is an old and wealthy city. Nowhere in Japan did the streets present such a busy appearance. The principal business streets reminded me very much of State Street in Chicago. The city lies upon the banks of the Yodogawa River, the river that forms the outlet of Lake Biwa. The activity of the life on the river and numerous canals corresponds with that of the streets. The river is crossed by three great bridges.

In the evening we visited Shin-sai-bashi-suji, the principal street. The street is wide, but it was so crowded with people as late as ten o'clock that we had to elbow our way through the throng. In this street are all kinds of theaters, concert and dancing halls,

and shows. The Chicago World's Fair Midway Plaisance was about the only thing that could compare with the life and attractions of the main thoroughfare of Osaka.

To one place, in front of which an enormous crowd of people had gathered, and at the entrance door of which a man was talking in a loud, coarse voice and gesticulating as only an Oriental can, we gained admission on paying an entrance fee of one cent. The card of admission was a block of wood too large for any ordinary pocket, with characters inscribed upon it as large as the palm of the hand. We found here as attractions a collection of snakes of enormous size, with which two girls played as their younger sisters would with their dolls. On leaving the snake show we felt we had received more than an equivalent for our cash outlay, and our only regret was that on leaving we had to part with the weighty but to us interesting admission ticket. The doors of a common theater were swung open to us on the payment of half a cent, for which we received the same kind of an admission card, which we held in our hands until we were relieved of this additional weight on leaving the hall filled with smoke and the din of the most barbaric, ear-splitting music.

In another place, for a similar pittance, we were given an opportunity to see sea turtles and lizards of prodigious size. The proper time to see this street is after nine o'clock in the evening, when the whole population seems to turn in this direction. Not far from this street we entered a first-class Japanese theater. The admission fee charged would more than satisfy the manager of a grand opera company. The attendance was good and represented the best classes of society. No chairs; again squatting on a mat. The



AMIDA STATUE AT OSAKA.

floor, as well as the balconies, is divided into spaces by a framework of low planks, affording room for three persons in sitting positions. Steaming teapots and tiny teacups were within easy reach of every one, and ash receivers were distributed all over the house.

The acting did credit to the dramatic art. The pantomime and mimicry of the star actor were better than anything I had ever seen before. After the first act it became necessary to change the scenery. From behind the curtain could be heard the buzzing of saws and the pounding of hammers. No American audience would have the patience shown by the Japanese public during the long interval. The patrons of this aristocratic theater, evidently used to such things, spent the time profitably and pleasantly by smoking, drinking tea, and visiting their friends in the various compartments, in all of which pastimes the ladies entered freely.

Although we could not understand a word of what was spoken on the stage, the artistic acting gave us a good insight into the subject. If this troupe of actors were to visit our country I am confident their skill would be thoroughly appreciated and they would meet with well-merited success.

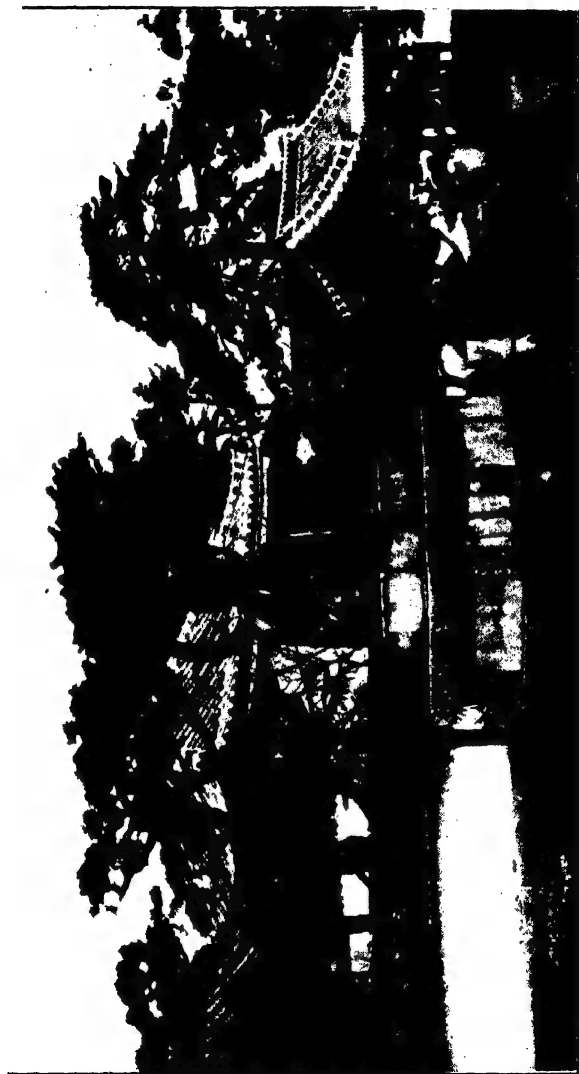
The Buddhist temple Tennoji occupies an immense tract of ground near the southeastern limits of the city. It was founded by Shotoku Taishi about the year 600 A. D., but has been well preserved by frequent repairs. The illustrious founder is worshiped at a shrine dedicated to this saint. Opposite this shrine is a bell which is rung in order that the saint prince may lead the dead into paradise. We witnessed here a peculiar worship or prayer for the dead. In the shrine next to the altar we found a man sitting before a low desk, with a row of women kneeling before him. In a low

voice one after the other spoke to him, deposited a copper coin, and for it received a piece of thin bamboo shaving upon which he inscribed the name of the dead. This slip was then handed to the priest in charge, who read a prayer, at the conclusion of which the bell was struck three times.

The slip was then returned to its owner, who generally threw a few pieces of cash upon the mat and made a bee-line for a building which contains a curious stone chamber with water pouring from the mouth of a stone tortoise into it. This slip was then tied on the end of a long bamboo stick, the end of which, with the slip, was then immersed in the sacred stream with the expectation that it would carry the message to the saint prince. The water flowing through the mouth of the tortoise comes from a pond near by, in which hundreds of live turtles are kept.

These turtles afford amusement for young and old. At a stand close by, hollow balls made of rice flour are sold. These are purchased by the visitors and are thrown into the pond. The moment this is done the turtles make a lively fight to catch the delicate food, and it requires usually several minutes before the struggle is ended by the most fortunate one of the dense crowd, which breaks the ball and greedily swallows the crushed material. From the five-story pagoda, the ascent of which is not unattended by difficulties, the whole city and surrounding country can be seen.

The old castle (Oshiro), the most important landmark in Osaka, is a marvel to the artisans of to-day, and within and around its ancient walls lingers much of the history of Japan. It is occupied by a heavy military guard, and a permit, which can be obtained at the city office, is necessary for admission. The structure was commenced in 1583 by Hideyoshi and



AMIDA BRONZE STATUE, KIOTO.

was completed in two years. An immense army of laborers, drawn from all parts of the country, was employed in its construction. It stands on a high eminence from where the whole city and the surrounding country for many miles can be seen—the busy city at the foot of the hill, winding rivers, lofty mountains, and waving rice fields in the distance. As a defensive point no better location could have been selected.

The palace within the castle must have been the grandest building which was ever erected in Japan. It survived the taking of the castle by Isyan in 1615; and in 1867 and 1868 the members of the foreign legations were received within its walls by the last of the Tokugawa Shoguns. On February 2, 1868, the buildings within the castle were set on fire by a train laid by the Tokugawa party before their final retreat, and were completely destroyed in a few hours.

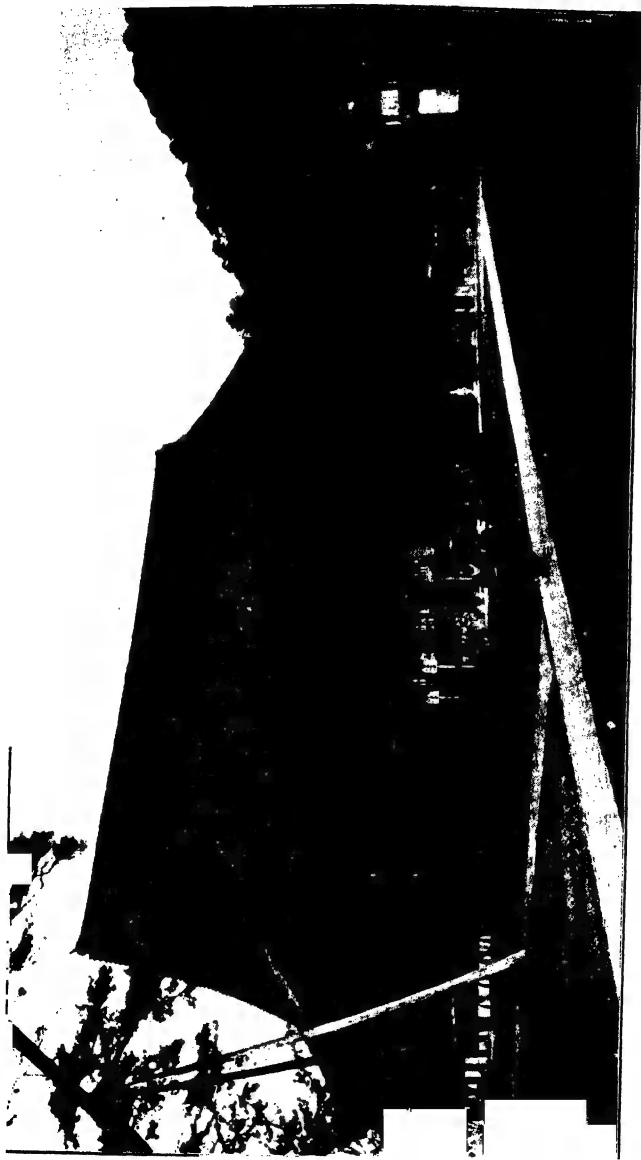
The castle is now used as the headquarters of the Osaka garrison. The size of the granite stones used in the construction of the walls is stupendous. Some, especially in the part of the wall about the gate, measure as much as forty feet long by ten feet in height, and are several feet in thickness. How these immense masses of granite were quarried and brought into place by hand power is more than we can understand at the present time. The stones are cut so accurately that in placing them together only small crevices are left. No cement, or any other material, was used in building the walls. The moats are paved with granite throughout. The walls are so thick that they could serve well as a wagon road. Of this castle, Captain John Saris wrote in 1600:

“The walls are at the least six or seven yards thicke, all (as I said) of free stone, without any filling in the inward part with trumpery, as they reported

vnto me. The stones are great, of an excellent quarry, and are cut so exactly to fit the place where they are laid, that no mortar is used. The castle is built all of free stone, with bulwark and battlements, with loope holes for small shot and arrowes, and divers passages for to cast stones vpon the assaylants."

Within the castle is a school for military cadets. About 200 boys from ten to thirteen years of age marched into the castle square at the time of our visit. They were in charge of a number of officers, who had given them the routine morning drill. They were all in uniform, and a cheerier, happier lot of boys it would be difficult to find. They gathered in front of the schoolhouse on the shady side of the building, and if one had not seen them, but only heard them, he would have supposed that there were over 1,000 instead of 200 boys.

After a rest of ten minutes they received their daily singing lesson. Little fellows not long from the backs of their mothers, gave the command to fall in, and soon had the boys arranged in two lines, which, on inspection, would have satisfied the most punctilious reviewing officer. Then appeared a cornetist. He gave them the time to the song that was the lesson for the day. In one voice they all responded. Then came the singing, accompanied by the cornet. It was singing with a heart and a will. Two hundred voices from as many little throats rang out strong and clear together. It was many voices united in one and in accord with the sweet, penetrating voice of the cornet. This singing in the outdoor air by these little soldier men riveted me to the spot where I stood spellbound. It was an event in our Osaka visit I will never forget. Here were mere children being instructed in the science and art of warfare, the future defenders of the



CHIONIN TEMPLE, KIOTO.

greatness of Japan, a scene and a demonstration exhibiting the progressiveness of this wonderful nation.

The journey from Osaka to Kioto by rail is made in an hour and a half. The road leads through a wide fertile valley, densely populated, with mountains on both sides. The country is under high cultivation, the principal products being rice, millet, taro, and vegetables. We arrived at Kioto, September 12th, at 7 p. m., and found very comfortable quarters, good table, and service at the Kioto Hotel.

Kioto is the second largest city in Japan, its present population being 343,000. With an interception of three years Kioto was the capital of Japan from 784 to 1868. The palace has been repeatedly destroyed by fire, but has as often been rebuilt. The present palace was erected after the great fire of 1854. The glory of this ancient capital has steadily declined since 1590. It is situated on the Kamagawa River, which during the dry season is a mere rivulet in a wide, stony bed. Its chief watercourse is the Biwa Canal, which connects the lake of the same name with the river.

The traveler will find in Kioto more of Japanese life and customs than in any other of the large cities. It is famous for its pottery and porcelain, its embroideries, cut velvets, and brocades, its damascene and bronze inlaid work, and its cloisonne.

The works of art are made in small shops by experts with a patience and nicety of detail that is astonishing. We were informed that it required one month of steady application by an expert artist to finish a piece of inlaid work which the owner was anxious to sell for thirty yen.

The gold threads used for inlaid work are made by hand by rolling gold-leaf between a spatula and a smooth metallic surface. The girl who was engaged

in this kind of work earned her daily bread by making every day 150 gold wires almost as delicate as a hair. To make the fine grooves for these hair-like threads and hammer them in place needs a keen eyesight and a delicate hand.

It requires eight days to take in the sights of Kioto. As we had only three days at our disposal, we were kept busy night and day seeing the most notable attractions. There is no end to magnificent temples here. A minute description of all of them would make a volume of no small size. The rich carvings, the old paintings, the statuary, the bronze and stone lanterns, the shrines, the pagodas that are met with everywhere leave a picture in the memory that is to say the least confusing. It is much better for the visitor to make a careful study of one temple than to make a vain effort to visit and comprehend them all.

One of the temples that impressed me the most was the San-ju-sara-gen-do, the temple of the 33,333 images of Kwannon, the goddess of mercy. It was founded in 1132 by the ex-Emperor Toba, who placed in it 1,001 images, to which the Emperor Go-Shirakawa added as many more in 1165. The temple with contents was completely destroyed in 1249. In 1266 it was rebuilt by the Emperor Kameyama, who filled it with images of the thousand-handed Kwannon to the number of 1,000. The many-handed gilt wooden female images are placed in rows one above the other behind the altar. As there are only 1,000 images, the number 33,333 is reached by counting the smaller effigies on the foreheads, on the halos, and in the hands of the larger ones. Though all of these images represent the same divine personage, a close inspection shows slight deviations in detail.

Another most interesting temple is the Higaski



PAGODA OF YASAKA KIOTO.

Hongwanji Buddhist temple. It is an offshoot of a temple built in 1692 and destroyed by fire in 1864 during the unsuccessful attempt made by the followers of the Prince of Choshu to apprehend the Mikado. The new palatial structure was completed in 1895. The rebuilding of this great edifice was a strictly popular enterprise. All the surrounding provinces contributed their share—over half a million of dollars in all—while many peasants, considering gifts in kind to be more honorable and, as it were, more personal than contributions in money, presented timber or other materials. Some of the colossal wooden pillars, made of the best wood found in different parts of Japan, cost 25,000 yen apiece. The timbers were all lifted into place by twenty-nine enormous ropes made of the hair of thousands of female believers. These ropes are still preserved in a godown. For a consideration and with a card of admission, we were permitted to see these mementos of pagan piety. The long, black hair was twisted into cords the size of the little finger, and these cords into ropes the size of a man's forearm. The splendor of this house of Buddha worship is dazzling. In its architecture it represents faithfully the temples of the Hongwanji sect. A pair of splendid bronze lanterns ornament the two entrances. All of the woodwork is kegaki except the beams of the ceiling, which are of pine. The carvings are numerous and artistic. The paintings of lotus flowers of gigantic size on a gold ground do credit to modern Japanese art.

Chim-in, the principal monastery of the Jodo sect, stands on a hill in eastern Kioto in a fortress-like situation. It was founded in 1211, but most of the present buildings date from 1630. The cornices and cross-beams of the temple are profusely decorated with colored ara-

besques, geometrical figures, and fabulous animals of most grotesque forms. The ceilings are decorated with paintings of dragons and angels in a yellow ground.

On the right of the Hondo, on a small elevation, stands the bell tower, completed in 1618, containing the great bell cast in 1633. This bell is a splendid specimen of ancient art of casting, being 10.8 feet high, 9 feet in diameter, $9\frac{1}{2}$ inches in thickness, and weighs nearly seventy-four tons. The tone of this bell, when struck by the enormous block of wood horizontally suspended, is deep, sonorous, sweet, and can be heard at a distance of four miles.

The Hondo, facing south, is 167 feet in length by 138 feet in depth, and $94\frac{1}{2}$ feet in height from the ground. The gilt metal lotuses in the front pillars of the Enko Daishi shrine reach a height of 21 feet from the floor, being nearly half of the height of the building. Under the eaves of the front gallery is an umbrella, said to have flown thither from the hands of a boy whose shape had been assumed by the Shinto god of Imari, guardian deity of this monastery.

East of the main temple is the library, in a giant revolving bookcase, containing a complete set of the Buddhist canons.

The Mikado's palace consists of a mass of buildings and occupies an area of nearly twenty-six acres protected by solid stone walls and a moat. The grounds are beautifully laid out and shaded by magnificent trees. The different buildings contain countless works of art and antiquity.

We left Kioto by train at 8:30 a. m., and arrived at Kameeka station in an hour and a half. The road passes through a romantic gorge deepened for thousands of years by the tearing waters of the river that drains the high mountains behind Kioto. The tracks



BIG BELL AT CHIONIN, KIOTO.

ran through nine tunnels, and from the car window the foaming, roaring, tumbling waters of the river can be seen most of the time.

The valley that leads from the city to the mountain ravine is fertile, and it was there we saw the splendid bamboo groves and fields of indigo ready for harvest. The indigo-plant grows to the height of our beans, and from it is extracted the valuable coloring material.

From the station we walked to Haza through rich rice fields and found ourselves at the head of the famous rapids. We hired a boat with three boatmen and commenced the delightful descent in the direction of Lake Arashi-yama. These cataract boats are made for this special purpose. They are built of thin, flexible boards, which yield to outside pressure without breaking or splitting. As we had ample opportunity to observe, when subjected to sudden outside pressure in narrow places, they would yield like rubber. The trip from Haza to Arashi-yama takes three hours. About half-way down the water was too shallow and we walked a short distance over an excellent mountain path, and, with our crew, took a second similar boat and continued our downward journey.

The trip is one of constant delight and full of surprises. It requires experienced boatmen to guide the fragile craft between rocks and through narrow, crooked gaps made by the tearing current, but no mishaps occurred. Along the whole distance the mountains on each side are almost within reach and darken the narrow valley. A dam at Arashi-yama converts the restless river for some distance into a placid lake. This place is a favorite picnic ground for the Kioto people, as it is famous for its cherry blossoms in the spring and the brightly-painted maple leaves in the

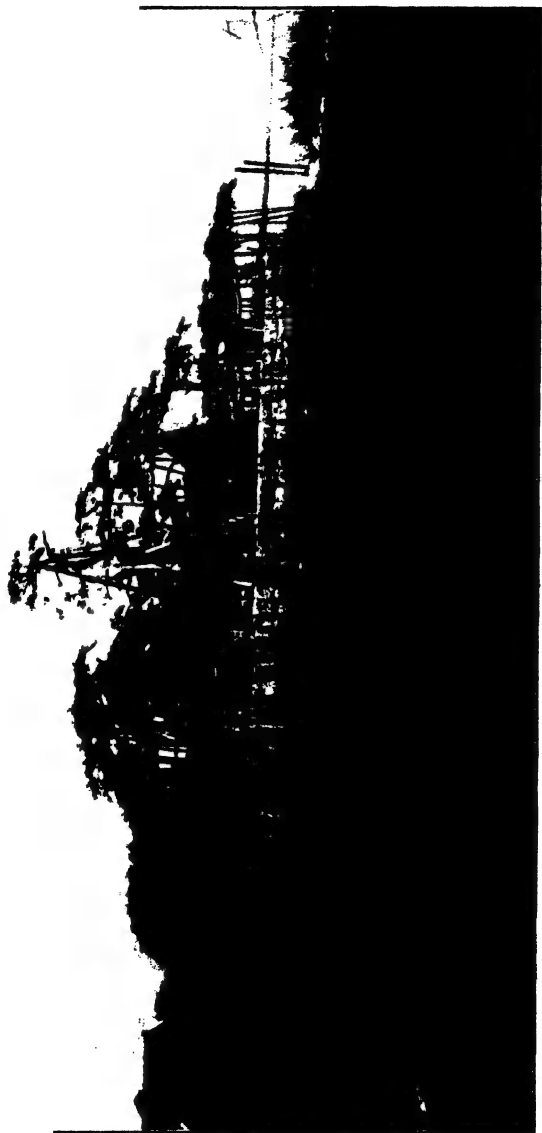
fall. We took tiffin, including mountain trout, at one of the many tea-houses here, and then returned to Kioto greatly pleased with the day's outing.

Biwa is a famous mountain lake easily accessible from Kioto. We left Kioto at 9:30 a. m. by the Tokaido railway for Baba, where we arrived about an hour later. At Baba is the station for Otsu, a city of considerable size on Lake Biwa, where we took jinrikishas to Ichigama, where we arrived at noon in time for lunch. We found in large tanks eels of all sizes and selected our own fish for the meal. Ichigama is a small fishermen's village lying at the outlet of the lake.

The Meidra temple, 750 years old, stands on a high eminence, from which a splendid view can be obtained of the lake and the many villages on its shore. The way to it leads through an avenue lined with maple and cherry.

We hear much about the cherry blossoms in Japan. They are the favorite object of the native artists and the native poets sing rhymes describing their beauty. It is not generally understood that the cherry tree so much admired by the Japanese for its rosy blossoms does not yield edible fruit. The cherries which follow the gaudy blossoms are small and sour. Japan, however, has a cherry tree like our own that is valued for its fruit and not for its blossom.

Biwa is a charming lake lying among the mountains, 500 feet above the level of the sea. Its shores are lined with villages of all sizes. Its water is as clear as a crystal and is inhabited by countless fish. It is forty-five miles long and fifteen miles across at its widest point. From Ichigama we proceeded to Otsu by jinrikisha, and from Otsu to Kawasaki, four miles distant. This way leads through the finest vegetable gardens on the face of the earth.



SPRING PINE TREE FOUR MILES FROM KAVASAKI ON SHORE OF LAKE BIWA. STATED TO BE
1300 YEARS OLD.

We made the last part of the trip for the special purpose of seeing the oldest pine tree in Japan, the age of which is estimated at 1,300 years—a long life, indeed—and there is every prospect that several centuries will be added to it before it will have to yield to the inevitable limitation of life. This veteran tree has withstood the elements for more than a thousand years and has seen the soil from which it imbibes its food change hands many times.

The trunk is forty-five feet in height. Its branches reach out in all directions and cover a surface, as I ascertained myself, that measures seventy-two yards from north to south and sixty-nine yards from east to west. This tree receives the kindly nursing of the priests in the adjacent temple. Its heavy branches are supported by stone pillars and strong poles, and its dead portions are carefully protected against rain by roofing them over.

We made the return trip on a canal boat. The canal perforates three mountains. The first tunnel is two miles in length. The many bats and myriads of small flies appeared to flourish in the moist, heated, pitch-dark atmosphere that fills the tunnels.

The Geisha dance is the national dance of Japan. Dancing in this country is a very peculiar accomplishment in which not the legs, but arms and hands are brought into requisition. The males are excluded from this sort of amusement, as the so-called dancing is done exclusively by young girls trained for this special purpose. The Geisha girls begin their training in a dancing school when eight years of age, and it takes three to four years before they are considered sufficiently accomplished for their singular life-work.

No foreigner of the sterner sex who visits Japan regards his trip as complete before he has seen a

Geisha dance. So we did. With our experience I am prepared to state that one exhibition satisfies all desires in this direction. Contrary to my expectations, the Geisha dance is not given in public, but to private parties in one of the 350 tea-houses in Kioto devoted exclusively to this kind of amusement.

It is no cheap entertainment either. If you want to see a Geisha dance, be sure to supply your pocketbook with at least five dollars in cash. The guide makes the necessary arrangements and considers himself one of the party at your expense. The guide who opened the way for us to see the Geisha dance engaged seven girls, four dancing girls and three ex-dancing girls, who acted as musicians.

The moment we entered the room and squatted on the mats, the usual ceremonies commenced by serving saké and sweets and by placing at our disposal pots to receive the tobacco ashes. Two girls then took the mat-covered floor and commenced the performance by circling, walking, and trotting around, and twisting arms and hands into all possible postures. The upper extremities did the dancing in the air.

The dancers were mere children, and the whole performance appeared to me like child's play. We did not remain long, as we were fully satisfied after the third dance and returned to our hotel fully determined not to indulge in this kind of amusement again. How the natives can enjoy such silly exhibitions night after night and year after year is a mystery to me.

A visit to Kioto would not be complete without witnessing a wrestling match. I understand the Japanese are the greatest wrestlers in the world. This popular national amusement takes place in a circus tent, near the center of the city, with a seating capacity for over 1,000 persons. The exhibition we witnessed



JAPANESE WRESTLERS.

occurred in the afternoon. The place was crowded. In the audience I noticed many well-dressed ladies and children. The immense crowd was very orderly. Tea, tobacco, sweets, and iced drinks were sold and found ready customers. The wrestlers were sitting on mats in a row near the ring. Their clothing was limited to a breech-cloth, thus freely exposing their well-developed muscles to public view.

Two judges and a second for each wrestler refereed each match. The ring was in the center of the tent, elevated above the level of the floor. The wrestlers were formally introduced to the audience by a man wearing a much-checked gown and with a clarion voice. The wrestlers were splendid specimens of physical development. Among them were several heavyweights with a surplus of fat, and it is a noteworthy fact that when matched against smaller men they invariably came out ahead, not by throwing the antagonist, but by pushing him outside of the ring, which meant an equal defeat.

In getting ready for the contest the wrestlers faced each other, then crouched upon hands and feet with the heads close together, and when the signal was given they sprang at each other simply to test their strength.

The next bout was generally the decisive one, and was usually finished in a few minutes either by throwing the antagonist or by forcing him outside of the ring, which was a small one.

The matches came in rapid succession, and the victor was always lustily cheered. Wrestling as practiced here is a harmless and useful public amusement, as it lacks brutality and is a genuine test of muscular strength, dexterity of movements, and good judgment.

This kind of sport is popular in Japan. Boys large

and small can be seen wrestling in the streets, alleys, and empty lots, undoubtedly many of them with the expectation of becoming professionals.

Kiukakuji Garden, formerly the home of a retired Shogun, has been converted into a public park. An entrance fee of ten sen is charged. The garden is artistically laid out. In the middle is a lake with pine-clad shores and pine-clad islets. The lake is full of a flowering water-plant and is stocked with carp.

Feeding the carp is one of the interesting features to every visitor to this place. The carp know the feeding ground, and as soon as visitors appear they lose no time in reminding them of their appetite by their prompt presence in large numbers.

The palace has disappeared; only a pavilion remains, much dimmed by age. It contains statues, and its walls show paintings of ancient masters. The third story was completely gilt, the gold being laid on thickly over varnish composed of hone powder and lacquer upon hempen cloth.

At a large tea-house the visitor will be given to learn what is meant by a tea ceremony. The tea is served in large cups upon a saucer, which are grasped by the drinker with both hands in taking the draught. Adjacent to this tea-house is a pine tree, the branches of which have been trained so artistically that the whole tree represents a Japanese sailing junk, ship, mast, sails, and rudder being clearly portrayed.

We left Kyoto Monday, September 16th, and arrived at Yokohama at 10:15 p. m. the same day. If it had not been for the interesting scenery along the whole length of the road the journey would have been tedious, as the American expects faster time when he travels by rail. This journey gave us an opportunity to see much of farming and country life.

The road passes through a wide valley bounded on both sides by mountains except where it encroaches closely upon the coast. Not far from Yokohama it follows the ocean for some distance. Numerous villages and several cities of size and importance are passed by the road. Many tunnels, some of them of considerable length, had to be made in constructing the road-bed in order to shorten the distance. Most of the large river-beds we crossed were dry, as the water during the dry season is used in irrigating the rice fields.

Nagoya is a large and flourishing manufacturing center, and Okazaki is noted for its silk manufactories. At Hikone and Ojaki ancient castles came in view, and at Futagawa a colossal statue was seen on the summit of a high hill. The mountain ranges are broken and their sides clad scantily with pine and hard timber.

We never lost sight of rice fields from one end of the journey to the other, and for miles the handsome tea shrub with its dark green aromatic leaves enchanted our eyes. Among the other farm products I noticed millet, indigo-plant, ginger, sweet potato, sugar cane, broom corn, beans, and here and there a little patch of sickly-looking Indian corn.

A few small vineyards and peach orchards were seen on the way. Apple and persimmon trees are permitted to occupy remote nooks and corners in front and between the houses of the many small villages we passed. The farmers were all busy in the rice fields, as harvest had commenced. Work in a rice marsh on a hot summer day is no sinecure, but these wiry little men, with nothing but a breech-cloth to cover their dusky skin and an umbrella-like hat to protect them from the burning rays of the sun, were

seen at work at all times of the day and far into the night. The rice is cut close to the soft mud, tied into bundles, which are then suspended on horizontal cane poles with the cut end of the straw upward.

During all my travels in Japan I have seen only one small herd of cattle, and these were kept to supply milk for a mountain hotel. The ground in Japan is too expensive for pasturing. The vegetable gardens in the vicinity of all of the principal cities are the finest and most productive in the world. I wish some of our young farmers and gardeners would go to Japan and see and learn how the Japanese extract from the soil its annual products without impoverishing its fertility. From Yokohama we made excursions to the most famous Japanese resorts, of which I will give an account in my next article.



THE SWEET FLAGS, HORIKIRI, TOKYO.

CHAPTER XVII.

EXCURSIONS FROM YOKOHAMA—MIYANOSHITA—FUJIYAMA—HOT-
SPRINGS—THE MAIDEN PASS—MOUNTAIN CLIMBING AND
SCENERY—KAMAKURA—ENOSHIMA—ITS NATURAL CURIOS-
ITIES—THE KAMAKURA DAIBUTSU—YOKOHAMA TO NIKKO—
CRYPTOMERIA AVENUE—NIKKO A CITY OF TEMPLES—TOMB
OF THE FIRST SHOGUN—LAKE CHUZENJI—KEGON-NO-TAKI
FALLS—NIKKO TO TOKYO.

Nature and wisdom never are at strife.—Juvenalis.

JAPAN has no such heated spells as occasionally visit Chicago. The climate is less severe and not as changeable. The even heat of the long summer is, however, debilitating, especially to the foreigner. Fortunately, Japan can furnish the desired relief from the steady heat in the inland cities without traveling great distances. Its coasts, its innumerable islands, large and small, its lofty mountains, its placid inland lakes, and its rushing rivers offer ideal places for summer vacations and recreation. While Japan is an excellent winter resort, it has many famous summer resorts, all of which are well patronized by the well-to-do natives and the resident foreigners. I will only speak of those I had an opportunity to visit. We made the different excursions from Yokohama.

The first place we visited was Miyanoshita. This pleasant mountain summer resort is famous for its hot springs, the coolness of its climate, the purity of the air, the excellence of the hotel accommodations, and the numerous mountain paths, both short and long. The village is a typical mountain town. The trip from Yokohama to Hodzu on Odawara Bay is made

by railroad, from here to Yamuto by electric tramway, and from Yamuto to Miyanoshita by jinrikisha propelled by two men. The jinrikisha route leads through the beautiful Ajakawa Valley, along a mountain stream with many cataracts and between lofty mountains timber clad to their very summits.

From Fujisawa we first caught sight of the monarch of the Japanese mountains, the Fujiyama. All of the paintings I have seen of giant Fujiyama fail to do justice to it. It is impossible to portray its grandeur on canvas, and its details and environments elude the search of the best camera. The pictures extant make it usually appear as an isolated, enormous cone with an immense cap of snow, when, in fact, it is only one of the many mountain peaks of a range of lofty mountains differing from the other peaks only in height and size. We could see very distinctly its bald peak and the irregular outlines of its enormous crater, as well as its timber-clad base. This was the best view we obtained of this famous mountain, worshiped by the natives and immortalized in rhyme and prose. The Fuji did not like us or the clouds playing with it ignored our presence. We never saw its face again. The peak soon became enveloped in a dense black cloud, and when, on the same trip, this massive cone came once more in sight, the face was veiled and thousands of feet below another thick layer of clouds shut out of sight its green timbered base, only the lower part of the bare peak being exposed to view. We did not appreciate this extreme modesty, and later climbed mountains and visited the best outlook from where this strange mountain can be seen in all its grandeur, but all in vain—Fuji did not reward our efforts. Fuji had decided to go into deep mourning as long as we remained within range of its view. Fujiyama lifts



A WATERFALL NEAR FUJI MOUNTAIN.

the mouth of its icy crater to a height of 12,365 feet. The last eruption occurred in 1708.

The principal hotel at Miyanoshita is the Fujiya, 1,400 feet above the level of the sea. The rooms are large, the table good, and the service excellent. Inlaid woodenware is a specialty of the villagers. The grounds are large, well laid out, and behind the hotel is a garden, fish pond, and a waterfall. The murmurs of this diminutive waterfall are soothing and the best lullaby for those suffering from insomnia. The hot springs are located about twenty minutes' walk from the hotel, in a deep gorge. The approach to the springs reminds one very much of the deep ravine that leads to the famous hot springs, Pfaeffers, near Ragatz, in Switzerland. The mountain torrent is as noisy and as turbulent as the Tamina. The immense boulders in the bed of the river and the rapid descent create eddies and cataracts which churn the water into a milk-white foam at every turn. The steep, bare rocks on each side, with the tall trees that cover the mountain side, keep the upper part of the narrow gorge in eternal shade. The atmosphere is saturated with steam and the spray from the agitated stream. At the head of the gorge is a deep basin with perpendicular walls of stone. Into this basin, from the top, pours an immense volume of the purest cold mountain spring water, and from its sides issues, from different points, in jets of various sizes, steaming hot water. From this place the hot water is conducted to the different hotels through bamboo pipes.

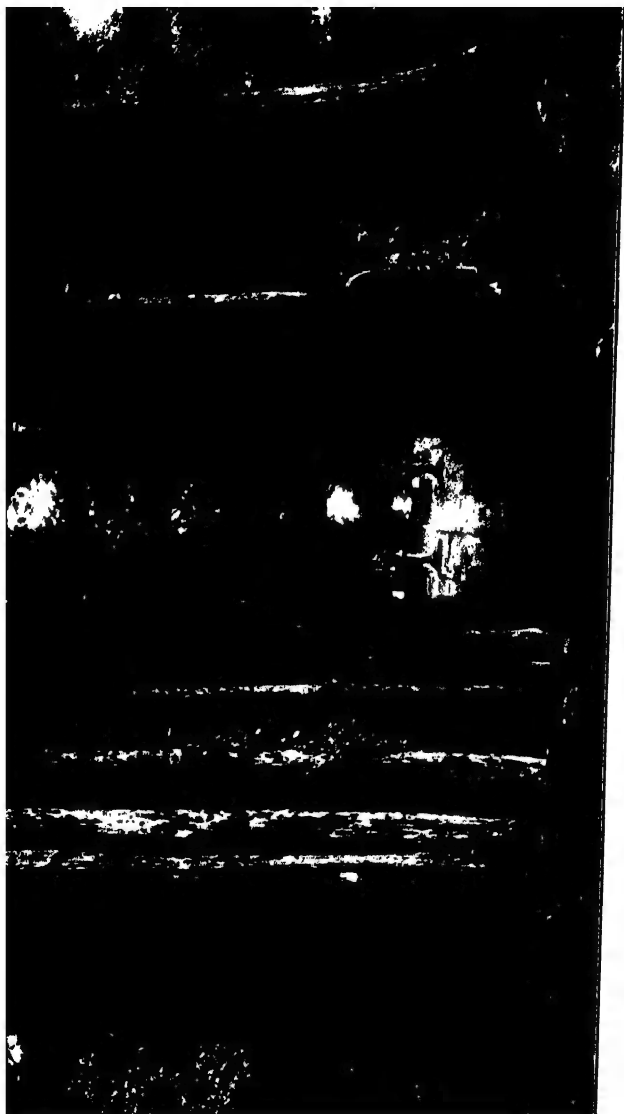
From Miyanoshita we ascended the Otome-Toge, or Maiden Pass, 3,300 feet above the level of the sea. Each one of the party had a mountain chair carried by four sturdy, sure-footed men. The mountain path is narrow, but smooth, and by its zigzag

course the ascent can be made on foot without any special fatigue. It was a pleasure on my part to relieve my men of much of their arduous labor by intercepting the ride frequently by walking.

The first village on the road is Kiga, with the tea-house Sengoku-ya. In front of this resting place is a large pond teeming with goldfish of all sizes and tinges, anxiously awaiting the arrival of guests, upon whom they have to depend largely for their meals. To the right of the pathway lies a mountain overgrown with tall grass; on the left rise lofty peaks clothed with pine and hardwood timber. After passing the first mountain ridge the path leads down to a narrow, fertile valley with the small village Sengoku on the way.

In this valley I saw for the first time corn fields that would please the eye of an Illinois farmer, and a herd of cattle belonging to the Miyanoshita Hotel. The mountains we passed over are covered with a heavy growth of grass—splendid pasture grounds—but no, or few, grass-eating animals. Why these Japanese Alps are not utilized for cattle raising is difficult to tell. A few Swiss from the alpine regions could make a fortune here in a short time.

The next ascent was more steep and longer, and I was glad occasionally to make use of my chair. The sensations awakened in the beginning of such an experience are very peculiar. The passenger instinctively almost and certainly for humane reasons is inclined to overestimate, perhaps, for the first time, his own weight. To ride on the shoulders of four fellow-men creates thoughts for serious reflection. The motion of the chair is very pleasant, but the idea that every step brings your weight with increasing force on the shoulders of the four men under you is not a pleasant



ENTRANCE TO GONGEN-TEMPLE, HAKONE.

one. The best consolation for the passenger is to know that these men would much rather do this kind of work than labor in the rice fields, and that he has to pay them twice as much as they could earn in any other way. With these thoughts the pleasure of the ride was gradually intensified, and I commenced to survey the surroundings.

In the distance, to the left, charming Lake Hakone could be seen glittering in the sunshine. Around me stood the subalpine flowers vying with each other in beauty and fragrance. Asters, goldenrod, lobelia, bluebells, and passion flowers were peeping out from among the high grass at every turn of the crooked path. Camelia and mimosa shrubs were ripening their fruit. The four carriers kept step to "hi! hi!" and when the grade became very steep and extra muscular exertion was required, the wording of the singsong music was changed to the more enlivening "hizo! hizo!"

We reached the top at 11 a. m. and rested long enough to partake of the cold tiffin our guide had brought from our hotel. Even here we found a tea-house, a primitive one, sure enough, but a tea-house it was in the estimation of our hungry and thirsty crew of twenty men. A bark roof resting on poles was the house, a kettle suspended from a perpendicular stick over a dull charcoal fire was the kitchen outfit, and a peasant woman from the village below attended to the wants of her guests.

Here is the best point from which to get a superb view of the Fuji; in fact, we were face to face with this great landmark of all Japan. We made the trip for the sole purpose of seeing this wonder of the Japanese mountain world. But Fujiyama had determined that our desire should not be granted. There

stood the giant, made by a volcano that remained faithful to its purpose in making it the highest point in the Island Empire by pouring out ceaselessly its molten masses and cinders until its aim was accomplished, surlily wrapped in a garb of dense clouds! How we did wish for a brisk breeze that would unveil the angry monarch! Tired of waiting longer for the impossible, we began our descent to Gotemba, from where we proceeded by rail to Kamakura, where we arrived the same evening and found pleasant quarters at the Marine Sanitarium.

Kamakura, once the proud capital of eastern Japan, has now been reduced to a quiet seaside village, which is a favorite summer resort of the Yokohama people. The hotel, a large and commodious frame building with many verandas, is situated under a pine grove near the seashore. All of the trees lean away from the direction of the prevailing winds. Kamakura is pleasantly located on the seashore, with a background of mountains. During the hottest season of the year the cool sea breeze renders the nights delightful. It is a historic place, and from it pleasant excursions can be made to many places of interest to the tourist. It was a capital city from the end of the twelfth to the fifteenth century. Here was laid the foundation of the feudal system which held sway until 1868. In its days of glory it is reputed to have had a population of 1,000,000, the city extending far into the adjacent mountain gorges and along the seashore. The village now is in a dilapidated condition, but many historical and political events cling to it. It has been the scene of many bloody battles between rival military factions. Here, on the seashore, were beheaded the Mongol ambassadors of Kublai Khan, who had imperiously sent to demand the submission

of Japan to his mighty rule. The city has been repeatedly destroyed by fire and water.

The first place of interest we visited was the island Enoshima, four miles distant from Kamakura, and connected with it by an excellent jinrikisha road, which for the greater distance follows the shore. This picturesque green spot of land, projecting as it were from the ocean, is more properly a peninsula than an island, as it is an island only during high tide; during low tide it is connected with the mainland by a narrow strip of a sandy bank. A narrow wooden bridge for foot passengers connects the island with the shore. Enoshima is a favorite picnic place with plenty of inns and curio shops. The specialties are shells, corals, and marine curiosities, many of which are brought from other parts of the coast for sale. The beautiful glass rope sponge (*Hyalonema sieboldi*) is said to be gathered from a reef deep below the surface of the sea near the island of Oshima, whose smoking top can be seen from here on a clear day. The bundle of delicate threads, projecting from a central sponge-like mass, I first mistook for silkworm gut, which they resemble in size and appearance. These threads are quite fragile and cannot be tied into a knot without breaking. I made this test for the purpose of determining if they could be used as a substitute for silkworm gut as a ligature material.

A spiral road leads to the top of the island. On the way a number of Shinto temples are passed. The whole island is regarded as sacred, but the most sacred spot is the large cave on the far side of the island. It is 124 yards deep, the height at the entrance thirty feet, but diminishes gradually toward the interior. Legend has it that this cave was at one time inhabited by an enormous dragon. The whole island is shaded

by large trees. Near the top the path leads between two narrow, deep gorges, one lined by almost perpendicular bare rocks, through which a glimpse of the ocean beyond is seen; the other, a deep, dark ravine darkened by large, overhanging trees and made impassable to the visitor by a dense jungle of shrubs and the climbing Japanese wild grape. The return path leads along the hillside through a dense forest. Here is one of the favorite points from which the Fuji, on clear days, can be seen in all of its greatness. To us this pleasure was denied on that day. The persistent clouds still lingered about it sufficiently to obscure it in its entirety.

Unkind Fuji, wicked clouds, good-bye! Great Fuji! We have spent two whole days in trying to get a good look at your face, your bald body, and your many tree-clothed limbs grasping the many mountains which have served you as a footstool for ages. You have persistently denied us this privilege. In an unguarded moment you threw your veil and robe of clouds aside long enough to give us a passing glimpse of your grandeur. You have denied us a more intimate acquaintance. Thousands from all parts of the globe who know your name and who have heard of your fame will come to your shrine in the years to come. Be more considerate to them. You are no longer in a land with locked doors. You must not hide your face to foreign nations. Remain true to the people who have worshiped you for ages, but when I come again I hope to find you in a better mood, so, au revoir!

The Kamakura Daibutsu, or Great Buddha, is the greatest and finest specimen of the Japanese glyptic art. It is indeed

*A statue solid—set
And moulded in colossal calm.*

It is a piece of art noted for its striking grandeur as well as for the beauty of the details and the accuracy of the anatomical proportions and outlines. The attitude of this colossal bronze figure is one of complete repose, the expression of the face is one of peace, contentment, and resignation, free of all passion. The image represents Amida, and probably was cast and placed in the present position in the year 1252. It was protected by a building supported on sixty-three massive wooden pillars. Many of the stone bases upon which they rested are still to be seen. This building was swept away by tidal waves. The temple buildings met the same fate in 1369 and 1494. The height of the figure is 49 feet, 7 inches; its greatest circumference 97 feet, 2 inches. "The eyes are of pure gold, and the silver boss upon the forehead weighs thirty pounds. The image is formed of sheets of bronze cast separately, brazed together, and finished off on the outside with the chisel. The hollow interior of the image contains a small shrine, and a ladder leads up into the head."

From Kamakura we returned to Yokohama, and the following day, Saturday, September 21st, left at 6:45 a. m. by rail for Nikko, where we arrived at 2:30 p. m.

The distance between Yokohama and Nikko is only eighty miles, but much time is lost in changing cars at Shingawa, Akabene, and Yutsonomiya. The road touches many villages of considerable size and passes over a wide, fertile plain, which toward Nikko converges into a narrow, wooded valley with a very gradual ascent. The first station, Shingawa, is really in the outskirts of Tokyo, and the railroad for some distance encircles the capital city. The miniature farms along the road produce rice, mulberry leaves, buckwheat,

sugar-cane, beans, tea, sweet potatoes, and a little Indian corn. This was the only time we encountered a hard rain. It rained all night before our departure; we started in a pouring rain, and it rained hard all the forenoon.

At Ishibashi the mountains on the right first came in view. It was on this trip I saw a pair of Mongolian pheasants, from the car window, breakfasting in an adjacent rice field. The noise of the train and the penetrating shrill of the whistle did not interrupt their meal, a conclusive proof that these shrewd birds had become perfectly familiar with the habits of the iron horse. The railroad crosses the finest public highway in Japan, Cryptomeria Avenue, twenty-five miles long, twice before it enters Nikko station—once at Imaichi station, and the second time as it enters the mountain village. This street, or rather country road, is famous for its giant cryptomeria trees. The cryptomeria (*Cryptomeria Japonica*) is a kind of cedar, and grows to an enormous size. The trees that line this great avenue on each side are on an average from 150 to 200 feet in height, and were planted more than 200 years ago. The trunk is straight as an arrow, covered by a thick bark, deeply grooved in a vertical direction. The evergreen crown of the tree is of comparatively small size. The trees were planted so closely together that many of them have formed organic union with their neighbors at their base, forming twins, triplets, quadruplets, etc.; in some cases small families of trees have everything in common, their joys and their woes. As the train slowly ascends the grade, the mountains almost insensibly make their appearance all around, cutting off distant views the traveler enjoyed on his way from Yokohama until this point is reached.

Nikko lies 2,000 feet above the level of the sea, and

its cool, salubrious climate has made it the favorite summer resort of the residents of Tokyo and the foreigners residing in that city. The village consists of one street, which follows the tearing, foaming mountain stream, Daiya-gawa, the outlet of Lake Chuzenji. The river and its surroundings remind one very much of Carlsbad in Bohemia. From the station to the N'ikko Hotel the grade is quite steep, requiring two jinrikisha men for each passenger, and the street passes through nearly the entire length of the village. At the Nikko Hotel, our headquarters, we met with the greatest courtesies on the part of the proprietor and employes. It is an ideal summer hotel, with large park-like grounds artistically laid out, and a charming lake, with central islet, toy boats, and flowering water-plants. I know of no more cozy, quiet, lovely place than this to spend a few weeks during the heated term, either for absolute rest or for mental work. The roaring and splashing of the magnificent mountain stream, the soft murmurings of the numerous little waterfalls and cataracts, the groves of lofty cryptomerias, the magnificent mountain scenery on every side, the many admirable mountain paths, the palatial temples, the innumerable shrines lend an enchantment to this place such as cannot be found in any other part of the face of the earth. Nature has done everything to make Nikko the second Eden paradise.

Nikko is a city of temples. It is the Mecca of the faithful. Daily and almost hourly pilgrims arrive here from all parts of Japan to ease their consciences by worship before the innumerable sacred shrines and to honor the distinguished dead. Here is the sacred Red Bridge crossing the tumultuous, noisy Daiya-gawa, barricaded on each side and which is only opened to the Emperor on his visits to this strange, sacred

mountain village. When our immortal Grant made his tour through this part of Japan, the Mikado issued orders to the effect that, as a special mark of appreciation and honor, this bridge should be opened for him. This unparalleled mark of courtesy, however, could not alter the good common sense of the distinguished visitor and his republican spirit; he declined the honor and crossed the bridge just below.

The founders of all temples in Japan always looked for a quiet, retired place for the sacred structures, away from the din and tumult of crowded streets and densely populated parts of cities and villages. With few exceptions, indeed, they always found and selected the most beautiful sites. A high eminence, a grove of trees, a murmuring brook were looked upon as the most desirable companions of the house of worship. Nowhere in Japan were these natural adjuncts so well represented and in such exquisite harmony as surround the temple of Ieyasu. This temple was founded in honor of Ieyasu, the first Shogun of Japan. It is located in a dense grove of cryptomeria trees of gigantic size. It is approached from Cryptomeria Avenue by a broad, smooth path lined by cryptomeria trees. The three terraced courts are entered by a number of broad granite steps; a rivulet of the purest mountain water, to the left of the court-yards, sings the same song as at the time the foundations of the temple were laid. The moment one enters the courts he is impressed with the intense solemnity of the place. In response to the gentle breeze the lofty tree-tops speak and the lines occurred to me:

*For on the ridge of Cytorus it often gave forth a
hissing, while the leaves spoke.—Catullus.*

The deadly silence is almost oppressive; the surroundings awe-inspiring. No business here except for the

welfare of the soul. The believers wend their way silently to the shrines. The stranger is spellbound by the beauties nature and art have showered upon this ancient house of worship. The priests in their solemn garbs perform their duties unmindful of the presence of sightseers. They have a duty to perform to those who come here to find comfort for their souls. The statuary and lamps that line the walk, through the courts, up to the temple, are all works of ancient art and remind the passing pilgrims of the sanctity of the place. The temple itself, with its rich carvings and magnificent paintings, would furnish ample material for study and reflection. Here are objects of art from Korea and other distant countries. Each room has its own special attractions to rivet the attention of the visitor. As much as I enjoyed the beauty and grandeur of this magnificent house of worship I was impatient to see the tomb of the first Shogun.

*He so sepulchred in such pomp doth lie,
That kings for such a tomb would wish to die.*
—Shakespeare.

Here lies all that is mortal of the great Shogun who founded the dynasty of Tokugawa that ruled Japan until her period of awakening in 1868. No other man in Japan since his time has displayed the same degree of statesmanship and military strategy as the founder of the late Shogun dynasty. His judgment was keen, his courage indomitable, his foresight incomparable, and his reign wise and patriotic. Like all mortal beings, he had to yield to the inevitable; time claimed him, for

*Pale death enters with impartial step the cottages
of the poor and the palaces of the rich.*—Horatius.

Ieyasu ascended the throne in 1603, and two years later, after establishing the government on a firm foot-

ing, abdicated in favor of his son. He built powerful strongholds, made new highways, established a system of posts, promulgated laws which were far in advance of anything that Japan had previously known. He died in retirement and was buried at Kuno-zan, in a beautiful shrine on a castle-like eminence overlooking the sea. In the year 1617, his remains were removed to their final resting-place at Nikko. His admirers and worshipers could not have found a more beautiful and appropriate burial-place than the one occupied by Japan's greatest warrior and statesman—the first Shogun. The tomb is not in any of the three courts, neither is it within the precincts of the sacred temple; these places are of too easy access. The place selected for this distinguished dead is on the summit of the high bluff behind the temple, out of the way of public gaze and turmoil of the outer world, and the gateway leading to it is guarded by an immense lock, as old as the tomb itself, which is opened only to those who have provided themselves with tickets for admission to this the most famous and sacred spot in Japan. The hour for closing this gate for the day is four o'clock in the afternoon. It was after the set time when our little party applied for admission. One of the high priests of the temple—the one figured in the illustration of this temple—made an exception in our case and had the gate opened. From this entrance a moss-grown stone gallery and several steep flights of 200 steps in all lead to the tomb on the hill behind. The tomb occupies the center of a square, enclosed by a stone wall surmounted by a balustrade, and the tomb itself is again surrounded by an iron railing. "The tomb, shaped like a small pagoda, is a single bronze casting of a light color, produced, it is said, by the admixture of gold. In front stands a low stone table,

bearing an immense bronze stork with a brass candle in its mouth, an incense-burner of bronze, and a vase with artificial lotus flowers and leaves in bronze."

I have seen only two tombs that could at all compare with this one in simplicity and grandeur—the monument of General Grant in New York and the tomb of Napoleon I. in Paris. The Grant monument was erected by a grateful people in memory of its great hero who united a divided country. The tomb of Napoleon immortalizes the deeds of the greatest soldier the world ever knew, of that restless spirit that aimed at nothing less than to make the whole world bow to his indomitable will. Both of these tributes to the distinguished dead are works of art and tokens of affection of grateful nations for the patriotic deeds of the departed, but neither of them has the surroundings that make the Shogun's grave the most solemn spot on earth. The Shogun's tomb is behind and far above the worldly temple, perched upon a precipice far above the busy village below, in a dense grove of stately cryptomerias that have stood guard over the precious remains for centuries, with lofty mountains all around, a mountain torrent at its feet, and murmuring brooklets and whispering rivulets percolating its precious soil, imparting to it its eternal verdure, symbolic of eternity. It is in a place like this that mortal man cannot resist looking backward and forward—backward into the middle ages made memorable by the life and deeds of the dead Shogun, backward to his own childhood, youth, and early manhood; forward to the life beyond the grave.

The Shogun's tomb is beautiful for its very simplicity. It is made of precious metal, but lacks all attempts at lavish ornamentation. There is no statue or image of the departed. What could be more appro-

priate than the simple ornaments placed on the stone table in front of the tomb? The stork, the emblem of paternal love and care, the candle to illuminate the world, the incense-burner symbolic of worship, and the lotus flowers representing the silent beauty of nature's choicest gifts.

I descended the many stone steps with a sense of deep emotion bordering on awe. On reaching the second court I could not resist the temptation to once more take a parting glance at the surroundings. It was sunset. I sat down upon the top step of the middle flight of stairs. An impressive silence prevailed. Not a sign of animal life could be seen or heard. The priests had finished their daily devotions. The bell in the court-yard was at rest. The leaves of the green crowns of the towering cryptomerias and giant camphor trees, gilt by the rays of the setting sun, were trembling in the gentle evening breeze. All at once a coal-black butterfly of enormous size and without any ornamentation whatever silently sailed into the first court. From whence he came I do not know. He fluttered in the air, dimmed by the deep twilight and evidently saw the glittering picture of gold painted on the tree-tops by the setting sun. He made heroic efforts to lift himself from the darkness that surrounded him and see the glorious sunset from the golden tree-tops. His ambition was a praiseworthy one, his motives of the purest kind, but his efforts failed. By most strenuous exertions he rose higher and higher until he was at the very verge of his goal, when his strength failed him and he disappeared in the darkness that had taken possession of the grove. No other animal could be seen within these sacred precincts. Have the dumb animals knowledge of the sacredness of this place? It seems so. This butterfly

who dared to invade it came properly attired and demonstrated qualities and virtues worthy of imitation. As soon as I stepped out from the shadows of this solemn sacred grove I saw butterflies in gay attire sail in all directions through the air feebly illuminated by the fading light of the setting sun, birds chirped their evening song, and I even saw a squirrel in one of the tree-tops taking his evening exercise in a most worldly way. As I left the tomb of the great Shogun, a wish came into my heart that his soul may have reached Nirvana, that state of perfect and eternal bliss for which it prayed on earth.

Weary traveler, come here and you will find what you seek. Tourist, come here and learn how the Japanese respect and honor their worthy dead. Ye that are conscience-stricken, come here and make peace with Him who is so near. Come here, ye that doubt the existence of God, and listen to His gentle voice of love from the tree-tops and the murmurings of the never-failing brooklets.

A trip to Nikko with all its varying attractions in its immediate vicinity would not be complete without seeing Lake Chuzenji, 4,375 feet above the level of the sea. This mountain lake is one of the most lovely spots in Japan, and is the most popular mountain summer resort. It is connected with Nikko by an excellent jinrikisha road, eight miles in length, leading along the bank of the tumultuous Daiya-gawa River and through a forest which clothes the mountain sides. The jinrikisha trip to this mountain resort is made with three men, owing to the steep mountain ascent. We started at 8:30 a. m. and arrived at the Lakeside Hotel, a modern inn on the shore of the lake, in less than three hours. For a long distance the road follows the bank of the Daiya-gawa through a deep gorge chiseled

out between the mountains by the force of the water, which has been pouring down in the direction of the ocean since the mountains were made. The force of the water at the present time is insignificant to what it must have been centuries ago, as the bed of the river is paved with rocks, some of them the size of small houses, which were tossed about and rolled into their present positions by the force of the ancient river. The road encroaches upon the edge of the bank in many places so closely that in case the frail conveyance should turn over in the direction of the river the life of the passenger would be extinguished in a moment by the tearing current. The mountain sides are green to their very summits, ornamented at this time of the year by mats of yellow and crimson, outlined by the painted leaves of maple trees upon a carpet of emerald green. The final ascent is very steep, and the zigzag turns of the narrow road become more and more frequent as the summit of the mountain is approached. Tea-houses at short intervals serve as resting-places for the traveler and his men. We made a prolonged stop at the Kegon-no-taki Falls.

We saw this fall at its best from a lookout some distance below the tea-house. The height of the fall is about 250 feet. The main mass of the water falls perpendicularly down this distance into a deep basin, striking the stone wall behind it in different places with a dashing noise, to be followed by the loud roaring as it reaches the enormous bowl chiseled out of the solid rock. On the left side of the main fall are little falls and cataracts where the water pours out from the bare stone wall half-way between the summit and base of the deep gorge. The volume of water is insignificant compared with that of our Niagara, the noise it produces is but the explosion of a firecracker

compared with the thunderings of the Niagara, but it is a fall of exquisite beauty, made so largely by the magnificence of its surroundings. We made more than one attempt to find a picture that would do justice to this part of the headwaters of the Daiyagawa, but found that the brush as well as the camera had failed utterly in imitating it to anything but a recognizable degree. As we ascended the mountain, enormous chestnut and beech trees became more and more frequent, and when we finally reached the summit a natural park of great beauty lay before us. Through this park the jinrikishas shot with railway speed, and in a few minutes landed us in front of the Lakeside Hotel, where we first caught sight of charming Lake Chuzenji, which lies at the foot of the majestic Nomtai-zan Mountain, 8,000 feet above the level of the sea, with other mountains of lesser height on the other sides.

Chuzenji is the pearl of the Japanese Alps. It is eight miles in circumference. It is of great depth and abounds with excellent salmon, salmon-trout, iwana, and other fish. A number of foreign ministers have cottages on its shore, among them Colonel Buck, of the United States. His charming little villa is near the Lakeside Hotel. A number of temples add to the picturesqueness of the shores of this lake, which is regarded as sacred by the Japanese. The little village of the same name is built on the very verge of the lake and is thronged with pilgrims for a few days during the months of July and August, the period for the ascent of the Nomtai-zan as a religious exercise varying from year to year according to the lunar calendar. As many as 10,000 sleep in the village at such times.

The descent to Nikko was made at full speed with-

out a stop, with no signs of physical fatigue on the part of our men. We left Nikko next day with a lasting desire to see it again. We left Nikko on the seven o'clock morning train, and arrived at Tokyo at noon the same day, where we selected the Imperial Hotel for our temporary home.



TWO HUNGRY WOLVES.

CHAPTER XVIII.

THE CAPITAL—THE GROWTH OF THE CITY—PARKS AND EXHIBITIONS—A DIVINE HEALER—EDUCATION—THE IMPERIAL UNIVERSITY AND ITS COLLEGES—REGULATIONS AND REQUIREMENTS—THE SCHOOL OF MEDICINE—HOSPITALS—METHODS OF TEACHING—TRAINING SCHOOL FOR NURSES—MISSIONARY WORK—THE ARMY HOSPITAL—TRAINING OF MILITARY SURGEONS—THE TOKYO IMPERIAL HYGIENIC INSTITUTE AND ITS WORK—LEPROSY—MEMORIAL SERVICES FOR OUR PRESIDENT—THE MINISTER OF EDUCATION—A FAREWELL BANQUET—BACK TO YOKOHAMA.

WE ARRIVED at Tokyo from Nikko at noon Monday, September 23d. The road on entering the city passes alongside Ueno Park, and the forest of aged trees gave an impression that we were some distance from this great city, when all of a sudden a sea of houses and busy streets lay before us, and a few minutes later the conductor shouted "Tokyo."

The way from the depot to the Imperial Hotel gives the traveler at once to understand that this is a city of great distances, as it takes the jinrikisha man nearly half an hour to make it, even if he does his best. The surroundings of the hotel picture to the visitor at once old and new Tokyo. It faces the imperial palace and close to it are the most important government buildings, but immediately around it are blocks of empty lots, grown up in weeds, and old, decrepit buildings. The Imperial and the Metropole are the two great European hotels in Tokyo, both on the American plan. The charges vary from six to ten

yen a day according to the size and location of the room.

Tokyo, formerly Yedo, was made the capital of Japan in 1590. Its name was changed in 1868. Before it became the seat of the government it was little more than a rude fortress, surrounded by a few fishing villages. This was its condition when Ieyasu, the first Shogun, took possession of it in 1590. The palace or castle of the Shoguns was repeatedly destroyed by fire and completely so in 1863. A separate building in the enclosure, which had been the residence of the heir-apparent to the Shogunate, was appropriated for the Emperor after his removal to Tokyo in 1868. From that time until the new palace on the old site was completed in 1889 he occupied the palace at Ao-yama, now inhabited by the Crown Prince. Much grading has been done to fill up lagoons made necessary by the rapid growth and expansion of the city.

Tokyo has been repeatedly the scene of terrible calamities caused by typhoons, earthquakes, fires, floods, droughts, and epidemics. An earthquake in 1703 claimed 37,000 lives. In 1773 an epidemic carried off 190,000 inhabitants. The last great earthquake occurred in 1855 with an appalling fatality. Tokyo was thrown open to foreign travel in 1869, but not to foreign residence. Tsukiji is still the only quarter in which foreigners can lease land. The growth of the city since it became the recognized seat of government on March 26, 1869, has been extremely rapid. Its present population is about 1,500,000. The streets are macadamized and in the new part of the city broad and well laid out. Only a few of the wide business streets have sidewalks paved with brick. The city is lighted by electricity, gas, and coal oil, no uniform



A STREET IN TOKYO.

system having been adopted. The business part of the city is flat, the choice residence part on a bluff.

It lies on the shore of Tokyo Bay, but the water is too shallow for large vessels, and Yokohama is its real harbor. Shiba and Uena are the principal parks. In the latter are the zoölogical garden, aquarium, industrial exposition building, and the art bazaar. The collection in the zoölogical garden is not large, but furnishes an excellent opportunity to study the wild animals of Asia. The aquarium contains nearly all of the salt-water fish in that part of the Pacific Ocean.

The industrial exhibition is a recent institution. It was built for the purpose of stimulating Japanese industries. The building is modern in its construction and admirably adapted for the purpose for which it is intended. The exhibits are changed every few months. At the time we visited the institution porcelain and cloisonné wares were on exhibition. The place was crowded with people, many of them artisans who inspected the works of art with the utmost care as a matter of self-instruction. A permanent exposition of this kind cannot fail in the realization of the object of this excellent institution and in bringing the works of Japanese art to the attention of the foreign visitors.

The bazaar is something resembling a great department store, in which everything can be found, from a needle to a steam engine.

In the great temple in this park I made an interesting observation. I was standing near an old stone image in front of the temple, which was surrounded by a group of women and children. A large wooden box with bars on its top close enough together to leave only space for the entrance of coins was the treasury of the much-handled, time-worn image. This image was a god, and this god was the one who had it in his power to cure all

sorts of diseases. In this place this god was the one who received the greatest attention. The other gods were idle; this god was kept busy from sunrise to sunset in relieving the afflictions of the poor. It was the old, old story, not only in the land of heathen but in our own country where thousands of church spires pierce the clouds, that men and women are most forcibly reminded of the existence of God when they are in trouble.

These poor women and children never thought of coming to this wonderful god when they were well, but when pain racked their heads or limbs how quickly they hurried to this shrine full of hope and confidence. How did they approach this image, the representative of superhuman skill?

I watched the performance closely. Very little time was spent in making the request. The immense cash box reminded the sufferers that this good god was not averse to cash. He could not speak, he could not write bills, but there was the cash box suggestive of his desire to be remunerated for the services he was expected to render. That cash box suggested pay in advance and not "no cure, no pay."

I was very anxious to know the cash value estimate of the public for such services. It was, as I had reason to expect from personal experience, very low. Some thought that this god was such a good god that he would be glad to do his work for nothing, simply for the asking of it.

Every one knew what they came for. They had their trouble well located before they stepped up to the hallowed shrine. One had a headache. She rubbed the polished forehead of the image vigorously with her right hand, then her own, and walked away smiling. The next had a pain in the region of the stomach.

That part of the body of the image received a thorough rubbing, then her own, and she returned to her home with the assurance that he would do the rest in the course of time. Rheumatic afflictions appear to be common, judging from the worn-away places over all the principal joints of the patient image.

But what about the income of this divine healer? As I said, many came with empty pockets, feeling that money could not tempt this god in the performance of his humane functions. Others thought that he would be satisfied with a small fee, much smaller than would be accepted by a doctor in the flesh of the lowest class. Brass was the metal of which the coins were made which occasionally found their way through the narrow slits between the bars into the enormous box underneath.

Has this estimate of the cash value of divine services an analogy in our own country? Ask the treasurer of any of the fashionable churches in Chicago, and he will unhesitatingly answer this question with an emphatic "Yes." The contribution box, that finds its way unerringly to every worshiper before the preacher announces his text, will tell the story. The millionaire banker, merchant, or butcher who pays several hundred dollars a year for a pew in the most conspicuous part of the church never forgets to put small coins into the most accessible pocket before he goes to church, and when that unwelcome box throws its threatening shadow in his face he fingers for the nickel and drops it in with a complacent smile, fully satisfied that he has done his duty toward his church and his God for the coming week.

A nickel makes as much noise as a five-dollar gold piece, and no one knows this better than our rich pew-holders. To be candid, how does this compare with

the brass coin (one-tenth of one cent) I saw the poor women throw into that immense box placed at the feet of their god?

The contribution box, I presume, is a necessary means of collecting church and missionary funds, and is the proper thing for the church-going people who have to earn their daily bread by hard work, but it is a too easy escape for our wealthy citizens, with which to purchase the weekly lullaby for their consciences.

The many buildings in process of erection, the construction of an elevated railroad well on the way, the grading of new streets, are the best proofs of the present rapid growth of the city.

Our party was most interested in the educational institutions of Tokyo, representing, as they do, the Japanese methods of instruction more fully than those of any other city in the country. Japan has two universities, the one in Tokyo and the second in Kioto. It can be said, without fear of contradiction, that for the last thirty years educational work in Japan has progressed more rapidly than in any other country. The first impulse to such a radical change was given by the teachers and professors from Germany. In the course of time their places have been filled by native talent, and only a few of them remain at their old posts. The majority of the new generation can read and write the native language.

Our party visited the different educational institutions of Tokyo under the most favorable auspices. The surgeon-general of the imperial Japanese navy had the kindness to detail Dr. B. Tomatsuri, commander in the Japanese navy, to take charge of the party and conduct it in person through the various places of special interest. He did his duty well, and we are under lasting

obligations to him and his superior officer for this great courtesy.

The Tokyo Imperial University consists of the six Colleges of Law, Medicine, Engineering, Literature, Science, and Agriculture. The university grounds, a large park-like tract of land, and its many stately buildings, can be seen to best advantage from the Uena Park, from which they are separated only by the lotus pond. The buildings of the first five of these institutions stand within the grounds of the old Kaga Yashiki, on the northeastern slope of the Hongo plateau, while the College of Agriculture is situated in the suburb of Komaba, some six miles apart from the others. This great university is yet in its infancy, for it practically came into existence on March 1, 1886, when an imperial ordinance fused the two independent institutions of the Tokyo Daigaku and the Kobu Daigaku into one under the title of the Teigoku Daigaku, or Imperial University.

Two national high schools, the Kais Igakko and the Tokyo Igakko, or Medical College, were old institutions, dating back to the Tokugawa age, were fused into one, which became defunct on the foundation of the university. During these changes, which ultimately terminated in the new university, the transfer of departments from one school to the other was of frequent occurrence. In June, 1887, the Tokyo observatory was placed under the control of the university, which accordingly became responsible for the compilation of the almanac. The agricultural department was not added to the university until June 11, 1890. The College of Agriculture includes a bureau of forestry. The university holds its own funds, and pays its yearly expenditures out of government appropriations, incomes from funds, tuition fees,

donations in money, and all other sources of revenue. The Emperor has made four extended visits to the different departments of the university since 1886. The university in its various departments or colleges has one hundred and thirty-one professors, distributed as follows: Law, twenty-three; Medicine, twenty-four; Engineering, twenty-seven; Literature, twenty; Science, eighteen; Agriculture, nineteen.

One provision of the regulations for degrees is interesting; it will be found in Article III: "If the holder of the degree be found guilty of any conduct detrimental to its honor, he shall be deprived of his degree by the minister of education, in accordance with a resolution passed at the assembly of Hakushi."

The fifth president of the university was the present minister of education, Dairoku Kikuchi, then professor of mathematics in the Science College. The academic year, which is divided into three terms, begins on the 11th of September and ends on the 10th of July.

Students are admitted to the colleges of the university at the beginning of each academic year. The requirements for admission are: Graduation at one of the higher schools, a course preparatory to the collegiate courses of the university if satisfactory to the examiners. The minister of education decides upon the standing of the higher schools. Each student when admitted pays two yen admission fee.

One article of the "General Regulations for the Colleges" will interest our university authorities: "II. When a student is admitted to any one of the colleges, he is required to take the prescribed oath, and to sign his name in the college register. He must also present a written declaration, in the prescribed form, signed by two sureties, who are responsible for him in all matters involved in his connection with the

college. Sureties must be persons above twenty-one years of age, who possess land or a house within the jurisdiction of the Tokyo city administration, or such other persons as the university may deem suitable and trustworthy."

The university makes ample provision and encourages postgraduate studies in all of its colleges. No surety nor tuition fee is exacted from postgraduate students. The university encourages elective studies. A student of any of the colleges, who is distinguished for his scholastic attainments and good morals, may be made an honor student and then becomes exempt from tuition fees. Scholarships are offered by the Colleges of Medicine, Literature, Science, and Agriculture, by companies, and by private individuals. The largest number of scholarships (sixteen) is offered by the College of Literature. The tuition fee in all the colleges is the same, twenty-five yen for each academic year, which is paid in three installments corresponding with the three terms.

The following are the directors of the colleges: Law, Yatsuka Hozumi; Medicine, Masanori Ogata; Engineering, Kingo Tatsuno; Literature, Tetsujiro Inouye; Science, Kenjiro Yamagawa; Agriculture, Naskichi Matsuj.

In the Medical College the prescribed course is four years, and the students, about 400, are divided into four classes. The first year's studies embrace anatomy, histology, physiology, and general pathology. The second year, practical and topographical anatomy, pharmacology, medical chemistry, materia medica, pathological histology and anatomy, diagnosis, general surgery, gynæcology, obstetrics, ophthalmology, and special medicine and surgery. Third year, topographical anatomy, special medicine and surgery, clinics,

hygiene, and legal medicine. Fourth year, clinics, operative courses, hygiene, legal medicine, ophthalmology, and clinical obstetrics. The pharmaceutical course, which is given in the same college, requires three years' attendance. The Medical College requires, as one of the conditions for graduation, a thesis containing the results of original investigation. The examinations are written, practical, and oral. Those who have obtained a mark of less than fifty in any one subject of the oral, written, or practical examinations are degraded, and are examined on all the subjects of that section in the next examination term. A candidate who has failed thrice in the examinations is thereby debarred from presenting himself at any future examination.

In connection with the School of Medicine are two hospitals: the first hospital, situated in the university grounds, and the second hospital, situated at Izmuicho, Kandaku, which admit such patients as may be deemed instructive cases in medical and surgical practice and investigation. They contain well-equipped laboratories for carrying out researches upon subjects relating to the sciences of medicine and surgery.

The first hospital has seven wards containing 119 rooms, and is provided with 420 beds in all, of which 266 are free. The second hospital has 151 beds. The material at the disposal of the clinical teachers of the college is enormous, and it is utilized in the most instructive and practical manner.

The two new operating-rooms in the first hospital seat 300 students each and are models of hospital architecture. Better operating-rooms cannot be found in any hospital in the United States. The Japanese students and teachers spend much of their time in the clinical laboratories. Each clinical teacher has his own laboratory.

The methods of teaching correspond with those in Germany. Many of the students take notes of the lectures in German, and the sight of a blackboard covered with drawings and explanations written in German is of very frequent occurrence. Nearly all of the textbooks are German or translations from the German. Many new buildings for the different colleges are now in process of construction, all of brick and of modern architecture. The university library has been recently completed, and already thousands of volumes in all languages and covering all subjects are well arranged, catalogued, and at the disposal of the students. The reading-room is large and is supplied with numerous little tables for the use of the students.

I was pleased to find that the Japanese students are quick to take advantage of such a rich mine of information, as many of the students were at work and hardly looked up from the books before them as we passed through the reading-room.

The Tokyo Imperial University is a new institution of learning of great promise and a credit to the government that has taken such a deep interest in its foundation and rapid advancement. Besides the university medical college there are eight other medical colleges in Japan, but they have no licensing power, as their graduates are obliged to pass a satisfactory examination before a special board of medical examiners before they are permitted to practice their profession. Graduates from foreign medical schools of good repute can apply for and receive a license to practice.

The Tokyo Charity Hospital was founded some twenty years ago. Dr. Kanehiro Takaki, F. R. S., England, surgeon-general imperial Japanese army, retired, and member of the House of Peers, is presi-

dent, and the surgeon-general of the navy is vice-president. It is built on the pavilion plan and has 150 beds.

Connected with it is a medical college which has an attendance of 300 students, and a training school for nurses with eighty-five pupils. A few private rooms are set apart for patients who are able to pay from one to two yen a day. The students of the Naval Medical School, candidates and postgraduates, receive their clinical instruction here. The average attendance throughout the year is ten.

The training school for nurses requires two years for the completion of a full course. The hospital is supported largely by donations, and from the manner in which it is conducted it is very evident that the well-to-do Japanese have a more willing heart to assist the sick poor than their Christian brethren in our country.

The outdoor clinic is crowded from morning until evening by the poor in need of medical services, who receive the most careful treatment by a staff of most competent physicians and surgeons. In this connection I wish to reiterate what I have said before, that after having inspected carefully the institutions for the sick in Tokyo, I am of the opinion that the time has gone by when it was necessary to collect money in our country and elsewhere with which to conduct missionary hospitals and dispensaries in Tokyo. There is no more reason for maintaining these institutions any longer than there would be for the Buddha and Shinto priests of Japan to come to Chicago and establish similar institutions by contributions from their believers.

I do not mean to discourage missionary work in Japan—far from it. The missions in Tokyo, Catholic

and Protestant, have been a great blessing, not only for the city but for the entire country, and are needed at the present time as centers of education and christianization, but the medical work of these missions has outlived itself and should be transferred to smaller cities on the coast and the interior, where there is still ample room for this part of missionary labor.

Baron Ishiguro conducted us through the Army Hospital and the Army Museum. The latter is a large, solid brick structure and contains an enormous collection of armor and arms dating back to the time when men fought each other in battle face to face. The trophies from China and Korea alone would fill a large hall. In front of the entrance is a cannon of enormous size. The Baron smiled when he said that this piece was made especially for the reception they intended to give Commodore Perry. It is unnecessary to say that for the good of Japan it has never spoken.

The government has made the very best provision for its sick and wounded in peace and in war, in the field and in the hospitals. The Army Hospital is the largest hospital in Tokyo; it has 500 beds. Two divisions of the standing army are garrisoned in Tokyo. In time of peace this hospital is intended for the local force. At the time of our visit it contained 250 patients. It contains a well-arranged laboratory and a small, well-lighted, well-equipped aseptic operating-room.

The nursing is entirely in the hands of soldiers who are well trained for this special function. Strict order and thorough cleanliness prevailed throughout the entire institution. The large park, of which the hospital occupies the center, affords an admirable opportunity for the convalescents to take advantage of outdoor air and exercise. We were met by the

chief surgeon and his entire staff at the entrance, and as we proceeded from ward to ward the orderlies and nurses were always at attention. In going through this institution every step brought surprises which went to show its practical arrangements and the systematic organization of its medical staff and corps of nurses.

Japan can boast of a model school for its military surgeons. Young graduates in medicine who desire to follow a military career and who pass the required physical examination enter this school to prepare themselves for military service. They are drilled like the soldiers so as to prepare them the better for their life vocation.

From time to time all of the military surgeons must take postgraduate courses, each of which covers a period of four months. The instruction consists largely of laboratory work and clinical demonstrations. The laboratory is large and well supplied with the most modern instruments and appliances. One of the young army surgeons, instructor in the laboratory, made a demonstration such as I had never seen before. He had prepared himself for our visit. On a shelf table under the windows extending along three sides of the room, he had placed at least two dozen microscopes with specimens illustrating the different forms of myositis in the field. Upon the table was written with chalk in German the legend of each specimen. It was an exhibition that would have done credit to a Virchow. The director of the school encourages original research, and we may expect to hear great things from this center of science of the Japanese army.

The crowning point and the pride of medical science in Japan is, and should be, the Tokyo Im-

perial Hygienic Institute. It was founded and is directed by Professor Kitasato, a pupil of Professor Koch. After his graduation in medicine, in Tokyo, this eminent bacteriologist decided to go to Berlin to perfect himself for his life-work. For seven years and a half he labored in Koch's laboratory. His work was not in vain. Before he left this institution he made discoveries that brought his name to the attention of all bacteriologists. Among these discoveries was one that had eluded the fertile mind of his great master, namely: he, by a process devised by himself, demonstrated the method for obtaining a pure culture of the tetanus bacillus. Soon after he established himself in Tokyo, he, with two other colleagues, went to Hong-kong to study the plague. He discovered the microbe which produces this disease.

To-day he ranks next to his teacher as the greatest bacteriologist in the world. His long residence in Germany has made him a thorough German. He speaks the language fluently. In appearance he bears a strong resemblance to the president of the University of Chicago. He is an indefatigable worker—he knows nothing but work.

The institute is attended only by graduates in medicine and physicians from all parts of Japan. The average number of his class is eighty. Each course lasts four months. The tuition fee is small. Most of the time is devoted to laboratory work. Besides conducting this great school of preventive medicine, he has established a laboratory for the manufacture of serum, a station for the production of vaccine lymph, a hospital for acute infectious diseases, and all this not being enough to satisfy his desire for work and doing good, he has founded the Tokyo Leprosery.

Leprosy is not very prevalent in the northern part

of Japan. Professor Kitasato is giving this dread disease merited attention; he is making it at the present time a special study. He believes he is on the right way to find a remedy, and if he does, as he undoubtedly will, he will become one of the greatest benefactors of the human race.

Thousands of unfortunates suffering from this so far hopeless disease will call him blessed. The Tokyo Leprosery, where this tentative treatment is now on trial, is located in the country some eight miles from the city. We made the trip by jinrikisha and returned from the station nearby by rail. Forty men and women constitute the colony. The starting point of the colony was a farmhouse; other buildings have been erected since. The garden and farm connected with the institution furnish useful employment for those who are able to work. The nervous and tubercular varieties of the disease are about equally represented.

The youngest patient was a girl twelve years of age. It is claimed that some of the cases have materially improved under the new treatment. The treatment is general, not local, but what the medicine consists of I did not inquire. When Professor Kitasato announces to the scientific world that he has found a remedy for this obstinate disease he will make it known in the most unselfish way, and it will be accepted by the profession as trustworthy and reliable. For the support of the many institutions under the direction of Professor Kitasato the government appropriates annually 40,000 yen. The income from these institutions, however, is far above this amount, and the surplus, not expended in enlarging and improving them, flows into the government treasury, so that the professor is instrumental not only in diminishing the frequency

of disease, but his work has at the same time become a source of income to his native country.

Just as the "Kaga Maru" was ready to leave Moji, September 10th, the news was brought on board of the dastardly attack on the life of the late President McKinley. This announcement soon spread and brought sorrow not only to the members of our party, but every one on board. We continued to hope that this information might only be a rumor, until we reached Kobe, where it was confirmed by the accounts given in the local newspapers. We were delighted to learn from the same source here and at Osaka and Kyoto that the President was improving and that everything indicated an early recovery. The course of events in his case was watched with intense interest by the natives as well as the foreigners. The newspapers discussed the case at length, and the cablegrams were looked for with intense anxiety. Soon after our arrival at Yokohama, September 16th, a small extra of one of the local Japanese papers, not larger than a hand, was circulated in the corridor of the hotel, and contained the terrible news of the unexpected death in the sentence flashed over the wires to all countries: "President McKinley died at eight o'clock." The sorrow caused by this message was universal. The flags of all nations were lowered to half-mast at once. Groups of natives and foreigners in low, solemn tones discussed the event.

On September 26th an impressive memorial service was held in the Holy Trinity Cathedral in Tokyo. The minister of the United States, Colonel Buck, made all necessary arrangements, and it was through his courtesy that the members of our party were admitted. The Emperor was represented by the Imperial Prince Kom-in. A detachment of United

States marines and soldiers, under command of a commissioned officer, constituted the guard of honor. Every seat was occupied. The front seats and center of the church were reserved for the nobility, the foreign legation, and army and navy officers of high rank, all in full court dress and uniforms. The interior of the church was draped in mourning. The hymns sung by the choir were "Rock of Ages" and "Nearer, My God, to Thee." After reading the service for the dead, Rev. Mr. Imbrie, a Presbyterian clergyman, delivered an eloquent memorial address, in which he paid a high tribute to the many virtues of the late President as a man, husband, soldier, and statesman.

Before the exercises commenced, the Imperial Prince, accompanied by Colonel Buck, entered, when the whole audience rose and remained standing until he took his seat in the front row of pews, opposite the pulpit. The guard of honor, arranged in a single file between the pews and the pulpit, facing the audience, in fatigue uniform with fixed bayonets, made a dignified and creditable appearance. Colonel Buck, in civilian full dress, was the ideal representative of a republican form of government, and in strong contrast with the uniformed, profusely decorated foreign ministers of other countries. All of the ceremonies were well arranged and passed off without the slightest confusion.

One of the principal objects I had in view in visiting Tokyo was to obtain, if possible, an interview with the minister of education. In this I succeeded better than I had reason to expect. I was aware of the fact that an interview with a Japanese high government official required full dress. I explained to my friend of the Japanese navy, Commander B. Tomatsuri, my desire and my shortcomings concerning full dress. He.

communicated with the minister, and I was much pleased to receive word on the same day that he would be glad to see me next morning at eight o'clock at his own residence. This courtesy on his part relieved me of the necessity of borrowing a full dress suit. The commander accompanied me on this visit. The minister's residence is a large, handsome mansion situated immediately behind the German legation. We called at the appointed time, and the servant led us into a large reception-room luxuriously furnished. Tea was served, and in a few minutes the minister made his appearance. He is a middle-aged man with clear-cut features and a penetrating eye. He is a graduate of Cambridge University, speaks English with very little accent, and has been all of his life a great student. Before his appointment to the cabinet he was professor of mathematics in the Science College, Imperial Tokyo University, and served as its president. I explained to him the object of my visit. I mentioned the fact that the United States, by the acquisition of her possessions in the Pacific Ocean, had become the nearest civilized neighbor of Japan, a condition which had brought about the necessity of a closer relation and acquaintance between the two countries. Japan has been in the habit of sending her students to Germany and England for a higher education. Japan, as well as America, owes much to these two countries for the advantages extended to students in search of a higher education, and for serving as models after which our educational institutions have been organized and conducted. Both countries are now in possession of universities, colleges, and schools that furnish excellent opportunities for obtaining a complete and thorough education. I expressed the wish that in the future Japan should send more students to America

for postgraduate instruction, and hoped that our students in the course of time would take advantage of the excellent facilities offered by the Japanese colleges, more especially the College of Agriculture. At the same time I explained to him the scope and facilities offered to foreign students by the University of Chicago. The minister listened very attentively, asked a number of questions, and I was very much gratified when he expressed himself as being in harmony with my views. The interview was quite a lengthy one, and I hope may have accomplished something in establishing a closer relationship in educational matters between the two countries whose interests in the distant Orient are becoming more and more in common.

Our visit in Tokyo terminated very pleasantly by a banquet given to the party by army and naval military officers of high rank, and the most prominent civilian physicians and surgeons, on Friday evening, September 27th, at the Imperial Hotel. Forty guests were in attendance. The table was appropriately decorated with flowers. The menu would have done credit to any Chicago caterer, and was ornamented with the America and Japanese flags painted in water-colors. Speeches were made by Professor Kitasato, Commanders Suzuki and Tomatsuri, and were replied to in English and German by the writer. Baron Hashimoto toasted each guest separately.

We left the same evening for Yokohama. This city is beautifully situated on the shore of Tokyo Bay and the bluffs behind it. Its present population is 180,000. It is the most European of all Japanese cities. The foreigners have made it a city of great commercial importance. In its excellent harbor may be found at any time ships from all parts of the world. The city was

founded in 1858. The foreign settlement is large and contains most of the large business houses. It has a number of excellent hospitals. The Grand Hotel is the best hotel in Japan. Its manager, Mr. Eppuyer, looks personally after the interests and comforts of his patrons, and the employes, mostly Chinamen, are very courteous and obliging. The traveler will find this city and Kioto the best places to buy Japanese specialties and curios. If it were not for the jinrikishas, any one watching the busy life on the Bund might mistake it for a boulevard in any of the large American cities. Yokohama has a public hall for English theatrical and other performances. Racing is one of the chief amusements of the foreigners, and His Majesty the Emperor is not an infrequent visitor of these meetings. The race-course overlooks Mississippi Bay, which affords an objective point for a drive. Indeed, the whole neighborhood abounds in lovely landscapes. On clear days Fujiyama shows out beautifully from the race-course, from the harbor, and from many other points. During our sojourn in Yokohama on three different occasions this capricious, surly mountain refused to be seen from any of these points.

CHAPTER XIX.

THE RED CROSS SOCIETY OF JAPAN—ITS GROWTH AND EXTENT—
STORES AND HOSPITAL SHIPS — THE RED CROSS HOSPITAL
—THE TRAINING SCHOOL—JAPANESE WOMEN AS NURSES—
REGULATIONS OF THE SCHOOL—INSIGNIA—ITS OFFICERS.

There is no mortal whom pain and disease do not reach.—Cicero.

THE noblest of the many charitable institutions that have sprung up in Japan since this country opened its doors to the outer world is the Japanese Red Cross Society. Since the organization of the Geneva Convention by Henri Dumont in 1864, most of the civilized nations of the world have established Red Cross Societies for the purpose of minimizing the horrors and sufferings of active warfare and to render aid to the victims of great catastrophes. In no other country have these humane efforts met with such unparalleled success as in Japan. This is certainly a startling statement when we remember that modern civilization was introduced into this country less than fifty years ago.

The Red Cross Society of Japan was founded in 1877 during the insurrection in the southwest provinces. It had for its object the relieving of the wounded and of the sick on the fields of battle and the taking care of them; for this it adopted the name of Hakuaisa (Society of Benevolence).

After the rebellion was crushed, the society constituted itself into a permanent organization and decided to make ample preparations for similar emergencies. When the imperial government recognized the Geneva



COUNT SANO
President of the Red Cross Society of Japan

Convention, the society decided to strengthen its bases and to extend its operations, to place itself in connection with the international committee of the Red Cross at Geneva, and to enter into fraternal relations with similar societies in friendly countries.

This resolution having been adopted at a general meeting, the society, with the approval of the ministers of the imperial household, of war, and of the navy, changed its name to that of "The Red Cross Society of Japan," and adopted rules and regulations for its government. The growth of the society has been phenomenal. It has at present 800,000 members, which simply means that nearly every family is represented in estimating the population of the country at 45,000,000. What has achieved this great success? By what means has Japan outstripped every other country in making provisions for the disasters of war and other great national calamities? These questions are not difficult to solve for any one who has seen the workings of the Japanese Red Cross Society. The imperial family takes a deep interest in this organization and contributes liberally to its funds. An imperial prince is its honorary president, and a princess the president of the ladies' committee. The Empress is a frequent visitor to the headquarters of the society and the Red Cross Hospital. This noble example given by the imperial family is a potent factor in arousing popular interest in this national institution.

Then again, the imperial family has the utmost respect for the leading medical men. Baron Ishiguro and Baron Hashimoto, the most prominent medical men of the Japanese medical profession, have been the guiding spirits in promoting the growth and usefulness of the society, and their efforts have been supported by a united loyal profession. The Japanese

people are easily reached by such powerful influences, and have responded promptly to such convincing examples. Popular interest is aroused annually by a public meeting of the members of the society, at which lectures are delivered by medical men, illustrated by magic lantern pictures showing the actual work of the society. Last year such a meeting was held during the cherry blossom season in Uena Park, which was attended by 200,000 members of the society from all parts of Japan.

Baron Ishiguro informed me that the lantern illustrations, demonstrating the actual work of the society, attracted a great deal of attention and contributed the most in popularizing the society, a method of public instruction which should be adopted by all countries that have the interests of the Red Cross Societies at heart. Then, too, it must not be forgotten that the Japanese people are fully imbued with the spirit of progress, and they are well aware that they have entered a stage of international life that may bring at any time serious emergencies they may be called upon to meet; in other words, they believe in making ample preparations for war before the war-clouds make their appearance.

The headquarters of the society are in Tokyo, and consist of a number of buildings for the central or executive office and storerooms. The central office is a capacious, well-lighted room luxuriously furnished. Here the committee meetings are held. Adjoining this room is another one set aside for the imperial family. The elegant furniture and the magnificent oil paintings of the Emperor and Empress impart to this room the aspect of royalty. The Emperor is in full dress military uniform; the graceful figure of the Empress wrapped in royal robes, and the massive



PRINCE KOMATSU,
Honorary President of the Red Cross Society.

hair hidden in part under the imperial crown, profusely ornamented with diamonds and precious stones. When I visited the headquarters of the society, under the guidance of Baron Ishiguro, tea, cake, cigars, and cigarettes were served in the office, and after a short rest we proceeded to inspect the storerooms of the Red Cross Society of Japan. Everything was in readiness for our visit. The Baron in uniform, with all of his well-earned decorations, was received everywhere with the utmost respect, officers and employes at attention. It was the contents of the storerooms that astonished me, and that gave evidence that Japan is well prepared for war, the amount of hospital supplies being something enormous. Stacks of uniforms and black dresses and white caps for the female nurses, lanterns, canteens, blankets, bedding, cots, tents, wagon loads of dressing material, field chests, litters, and trains of ambulances filled the many capacious rooms to their ceilings.

The Japanese Red Cross Society is not only the best but the richest in the world. It is a source of great humiliation to Western countries that this little island empire is so far in advance in everything calculated to make warfare more humane. It would be well for our own country to imitate its example and adopt its methods in making better preparations for war in times of peace. Within a day or two the Japanese Red Cross Society can load a hospital ship or railroad train and leave for the seat of war without causing the least anxiety or confusion. The surgeons and nurses are ready at all times to respond to the call, and the arrangements of the hospital stores are so systematic that they can be transported in the shortest possible space of time. The Red Cross surgeons and nurses are under military control,

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and do their work in the hospitals behind the fighting line.

At present the society owns two hospital ships, the Hakuai-Marui and the Kosai-Marui, built for this special purpose. On several different occasions these ships have done excellent service in taking care of the sick and wounded and in transporting them from different countries to their homes. When these ships are not needed for the purpose for which they are intended, they are leased to a Japanese ship company for a period of twenty years, at all times subject to the call of the society. During such times they are used as passenger ships. This source of income is used by the society for the construction of new hospital ships, so that the necessary number of serviceable ships is always available. After twenty years of service the ships are subjected to a thorough examination and are either sold or undergo the necessary repairs. It is in this respect, too, that the Japanese Red Cross Society has shown its wisdom and foresight in extending its work to distant seats of action.

The Red Cross Hospital in Tokyo is the best of all the many hospitals in that city. It is called Seki-jujisha Byoin and is located on elevated grounds in the suburb Shibuya and is an admirably organized institution. It is in this hospital that the Red Cross female nurses receive their education and training. It has a capacity of 250 beds, and is attended by a staff composed of the very best physicians of the city. The best class of patients patronize this institution, where they receive the best treatment and nursing and good accommodations at very little expense. Cozy little private rooms with medical attendance can be had for a yen and a half a day. In little wards with six beds, the daily expense amounts to only half a yen. A large



PRINCESS KOMATSU.
President of the Ladies' Committee.

charity department is connected with the hospital, where the deserving poor receive the best treatment and excellent nursing. The main building is a solid, two-story brick structure connected with pavilion barracks. The central figure of the medical staff of this admirable institution is Baron Hashimoto, one of the retired surgeons-general of the imperial Japanese army. It was he who gave me the opportunity to familiarize myself with the scope, workings, and details of this modern model hospital.

An elegantly furnished room is set apart for the royal family, and is frequently made use of on their visits to the hospital. Much of the building and maintaining funds flows from the imperial purse. It is said that when the Empress comes to this hospital she visits all of the inmates and has for each one of them words of encouragement and some small gift. The Empress is very popular in Red Cross circles throughout Japan. Her deeds of charity are many, and are bestowed in the most unselfish, unostentatious way. In her exalted position she does not forget the wants of her suffering subjects. Unknowingly and most unselfishly she practices daily the highest virtues of the teachings of Christianity.

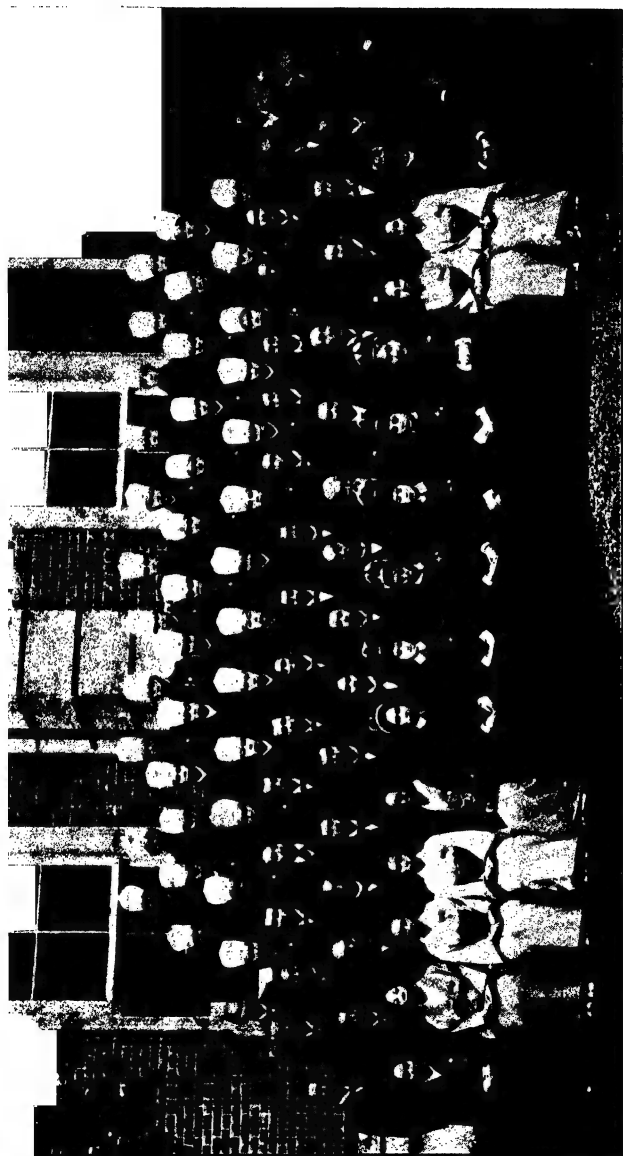
The pharmacy and chemical and pathological laboratories connected with this humane institution would do credit to any of our hospitals. The missionaries in Tokyo have done most excellent service for the city and the country in relieving the needs of the sick and poor, but it seems to me that the time has come to transfer their charitable work to more remote places in Japan, as the general government and city authorities are in a position to provide amply and well for the deserving sick and poor.

The sick of the Red Cross Hospital are cared for by

260 Red Cross nurses; that is more than one nurse for every patient. The large number of nurses insures excellent nursing, a fact which has undoubtedly much to do with the enviable popularity this hospital enjoys throughout Japan.

The Japanese recognized long ago the superiority of the female over the male nurse. The Japanese women by birth, nature, and training are admirably adapted for the care of the sick. Their graceful stature, the innocent, sympathizing expression of their eyes, their small, delicate hands, and their light, noiseless gait are qualities which go far to make them ideal nurses. Each candidate for the training school connected with the Red Cross Hospital must have a good elementary education and is subjected to a thorough physical examination. The age limits are from eighteen to thirty years; for military service the age limits are from twenty to forty years. The Japanese are an observing people, and have come to the conclusion that for service in the military hospitals the female nurse should have reached mature age, an opinion which I am sure is shared by all who have seen much military service.

The nurses in the Red Cross Hospital receive the most practical kind of instruction by lectures and demonstrations. They are made nurses and not half doctors, as is the case with many of our training schools. They serve an apprenticeship of three years, and on passing a satisfactory rigorous examination, receive the necessary credentials which entitle them to enter private practice. A graduated nurse in private practice receives from one yen to a yen and a half a day—quite a contrast with what our nurses are accustomed to charge for their services when on duty. A gilt maple leaf is the insignia of a graduate nurse from



GRADUATING CLASS, RED CROSS HOSPITAL, TOKYO, JAPAN, 1900.

this institution, while the small red cross on the front of the high white cap is common to the graduate and undergraduate nurse. In the operating-room, which is supplied with all the requirements for aseptic surgery and well lighted, the anesthetic, usually chloroform by the drop method, is administered by a graduate nurse, supervised by one of the assistants. The female nurses also make the necessary preparations and handle the instruments and dressing material. In witnessing one of Baron Hashimoto's operations I was much interested in the manner in which the gauze sponges were handled by the nurse. The gauze sponges are sterilized in a tube-like tin box with a closely fitting cover. When a sponge is needed, the nurse uncovers the contents of the box by opening the lid and with an aseptic forceps grasps and hands the sponge to the operator with this instrument.

The pupils' dormitory is a separate structure, where six nurses sleep in the same room. As soon as a Japanese young woman is accepted as a pupil, she leaves behind her her native dress, which is exchanged for a white dress, and the wooden sandal or clog gives way to the noiseless straw sandal. I made numerous inquiries concerning the efficiency and reliability of the Japanese female nurse, and uniformly received replies which were most commendatory.

I am sure it will not be amiss to quote here some extracts of the rules which govern the Red Cross Society of Japan, as this may become instrumental in a better and more efficient organization of our own. The society adheres to the decisions of the International Geneva Convention concluded between most of the European governments in August, 1864. The object of the society is, in time of peace, to train a staff qualified to aid the wounded and sick, and collect

the necessary supplies in the event of war, and to take care of the wounded in cases of extraordinary calamity.

The payment of from three to twelve yen annually, or of a minimum sum of twenty-five yen in one payment, secures a titular membership. After ten years a subscription member becomes a permanent member. Meritorious services rendered the society in time of war or in time of peace may, by a decision of the standing committee, be accepted in lieu of subscription or donation for membership. Provision is made for honorary membership. Women are accepted on the same terms as men. The honorary president must be a prince of the imperial family. The actions of the society are subject to the highest military authorities. The standing committee is composed of thirty members elected at the annual general meeting and remain in office for three years. This committee discusses and decides upon the important business of the society. The executive committee is composed of a president, two vice-presidents, and seven managers, elected by the standing committee from among its own members. Both presidents and vice-presidents can assume their functions only after approval of Their Majesties. The committees receive no salaries for their services. The president calls a general meeting every year in the month of April. He can call a special meeting whenever he shall deem it necessary to do so. One-tenth of the whole number of titular members, if they make application to the president, makes provision for other general meetings.

Subscribing members have no voting power at the general meetings, but can make propositions. The funds of the society are entrusted to the executive committee, which in turn reports to the standing committee every three months. The stores are collected by



TWIN SISTERS IN GRADUATING DRESS.

and are under the control of the executive committee, which reports to the standing committee every three months. In time of war the president changes the standing committee into an extraordinary one, and adds to it the requisite number of titular members. The powers of this committee are the same as those of the standing committee. The members of this committee serve during the duration of the war. The president may choose from among the titular members, delegates to be sent to the fields of battle and give them full power for the despatch of business. Six months after re-establishment of peace the president dissolves this provisional committee, re-establishes the standing committee, and calls a general meeting to render to it an account of what has been done by the society during the war. The executive committee is required to make an annual report, which has to be submitted to the standing committee for approval and is afterward presented to the general meeting for final action.

The emblem of the society is a red cross upon a white ground. All alterations of the existing rules must be adopted at a general meeting and must receive the sanction of the ministers of the imperial household, of war, and of the navy. The rules which govern the Red Cross Society of Japan are simple and liberal, and yet effective. This, with the fact that local Red Cross Societies have been organized in all parts of the empire, explains why the people have become so deeply interested in its humane work. The present chief officers of the society are: Honorary president, His Imperial Highness, Prince Komatsu; president, Count Sano; vice-presidents, Baron Hanabusa and Viscount Ogino; Her Imperial Highness, Princess Komatsu, president of the ladies' committee.

An intimate acquaintance with the objects, work, scope, and resources of the Japanese Red Cross Society created a desire on my part to become a titular member. When we were gathered around the festive board in the central office I expressed this desire to Baron Ishiguro, one of its leading and most influential members. The initiation fee was at once accepted and the Baron wrote the application and sent it by special messenger to Prince Komatsu for approval. In the evening of the same day the Baron brought to the reception-room a package wrapped in white satin cloth containing the badge and button of the society and a certificate of membership of the society signed by the Prince. He at the same time brought a message from the Prince thanking me for the interest manifested in the society and a hearty welcome to its ranks. The same courtesies were extended to my traveling companion, Dr. Jacob Frank, who felt the same as I did concerning the desirability of joining this noble organization. In conclusion, I am free to state that from an extended study of Red Cross Societies in different countries and from observations gathered during the Græco-Turkish and Spanish-American wars, I have reason to regard the Red Cross Society of Japan as the largest, strongest, and most ideal institution of its kind. This institution has accomplished an immense amount of good in the past without the least friction and is prepared to do more should occasion arise in the future.

CHAPTER XX.

REFLECTIONS ON OCEAN TRAVEL—LEAVING YOKOHAMA FOR HOME—OUR FELLOW PASSENGERS—SEASICKNESS AND SOME OF ITS VICTIMS—WE GAIN A DAY—BIRD ISLAND—HONOLULU—THE STARS AND STRIPES—CLIMATE AND BATHING—THE LEPER COLONY—THE SUGAR INDUSTRY—LABORERS LACKING—COFFEE GROWING—THE HOME VOYAGE—SNORING—THE GOLDEN GATE—THE HARBOR AND CITY OF SAN FRANCISCO—OUR RAILWAY RIDE TO CHICAGO—HOME AGAIN.

Before my mind's eye flit my home, the city, and each well-known spot; and to each place I attach what is naturally occurring.—Ovidius.

AFTER we finished touring Japan as far as our time permitted, we felt that we had really concluded the trip around the world, as nothing remained of our long journey except the sixteen-days' voyage to San Francisco and a three-days' railway ride from there to Chicago. For the first time we realized that we were about to commence our homeward journey. It is a long distance from Yokohama to Chicago, and yet comparing it with the route that we had so far followed, it appeared short and devoid of the many happy anticipations that inspire the traveler when he is about to visit a strange country with all its fascinating sceneries, strange people, and objects of art. A long ocean voyage is the most restful of all recreations, and after our ceaseless trips and constant sight-seeing it was looked forward to with pleasure, as it would afford us an opportunity to enjoy a much-needed rest. Life on the water is peculiar. It is confined to within the narrow limits of the floating

house, with the boundless, capricious ocean beyond it. The inmates are brought into close contact, and the acquaintances that are formed often ripen into permanent friendship.

For the traveler who is in haste and has nothing to do, the speed of the fastest steamer is too slow, he sees little to attract his attention, and he looks impatiently forward for indications of land. The real traveler, the man who loves nature, never gets lonesome, much less impatient, even upon the dreary ocean. There is much to see, much to learn. When the ocean is smooth, mirror-like, sleeping, it becomes a canvas upon which the sun, the moon, the stars, and the clouds paint pictures which no artist has ever been able to imitate to anything like perfection. When the ocean is restless, boisterous, and its surface is swept by a keen breeze, it presents a spectacle that never tires the searching eye. The race of the waves is always exciting. To the careless observer the race-track appears a long one. He sees a wave in the distance, follows its course, and believes sooner or later he hears and sees it strike the keel or the side of the ship, when in reality the wave he saw first disappeared in the twinkle of an eye, but before it died away gave birth to another one of equal size and power, and thus by a succession of waves the last one finally strikes the ship, meets with resistance, and angered at meeting with such an obstruction in its race, leaps up the iron wall as far as its force will carry it, but is rebuffed with a violence that sends it back whence it came, and with a thud and a splash it strikes the wave that followed it, and a little white-crested mountain of water marks the place where the collision occurred. Waves follow waves and meet with the same fate.

The music that accompanies the dance of the waves

varies with the size and strength of the dancers. The soft, speechless, gentle breeze ripples the smooth surface of the water, and the little wavelets prattle sweetly in a childish voice. When the cords of the rigging of the ship are struck by the invisible hand of a strong wind, they furnish the prelude to a louder music of the waves. The rapidity with which the air rushes over the water disturbs its calmness and raises wave after wave, which become larger and larger and more and more impatient, and in their anger moan and roar, and their passion knows no bounds when they strike the side of the ship with the force of a cyclone and the voice of thunder, and the rebuff that follows ends in a shower of foam that flushes the decks and whitens the hot smoke-stacks. The moaning and groaning of the angry sea keep pace with the irregular, passionate movements of the excited, dancing waves. As far as the eye can reach, the white-crested waves chase each other in the wild, trackless race. The fury of the wind increases and expends its force on the sea that is already in a state of the greatest commotion. The harp strings of the rigging are vibrated violently by its force; they answer the rude disturber in discordant notes when they attempt to imitate the steam whistle and the voice of the eagle. To this diabolical music the waves respond promptly as they rise mountain high, leaving dark valleys between, into which the frantic ship falls helplessly, only to be raised from its watery grave by the next giant wave that comes to its relief just in the nick of time.

The ship now takes a passive rôle in the furious dance. It rocks and pitches, moans and groans as it cleaves the angry water and leaps from wave to wave. The waves now speak in a voice of thunder. It is an

awe-inspiring and yet majestic demonstration of nature's hidden forces. The passenger on the intoxicated ship is made to feel the uncertainty of life and all earthly things more vividly than ever before. It is in a time like this that he is made to realize his utter helplessness and the frailty of everything made by human hands. Every few moments the decks are swept by the furious waves, made jubilant by their triumphant march over the struggling body of their unwelcome invader. More than half of the time the ship is under water, and as the passenger looks through the little circular, submerged window into the green wall of water, he realizes that he has become the inmate of what at any moment might become his tomb. Singing, playing, and novel reading—the usual amusements of the traveler on a quiet, peaceful sea—are suspended when he becomes an unwilling, passive party in such an infuriated dance of the sea. Fortunately, such experiences at sea are infrequent. More frequently the passenger enjoys the childish and not the giant plays of the sea. It is during such peaceful moods of the mighty ocean that he has an opportunity every evening to study a picture that can never be seen anywhere else. Leaning over the railing near where the keel cuts the water to make room for the ship, he can see the enormous furrows of water it throws up like a mighty plow, with their crests wrapped in a milk-white bridal veil, decorated by spots of phosphorescence contributed by the sea amœba, luminous spots that sparkle in the darkness of the night like the largest diamonds that ornament imperial crowns. What a beautiful night picture! The continuous waves made by the ship never cease to weave the veils, and the to the naked eyes invisible amœba are ever present to decorate it the moment they are made with jewels that

come and go with the twinkle of the eye. Then, too, the idle traveler can watch the fleecy, fleeting clouds, the glories of the setting sun, the starry heavens, and wonder at the wide expanse of the sea. The seabirds as they sail over and around the ship in search of food, the flying fish during their brief escape from their briny element, the lively porpoise in its race with the ship, the 'dark smoke from a distant steamer, and the snow-white wings of the sailing ships that are occasionally seen intercept the monotony of a quiet voyage, and furnish amusements that can only be seen and give rise to thoughts that can only be engendered on the wide expanse of the sea, the boundless ocean.

With such inspiring, consoling thoughts as these, we left the Japanese soil that had become dear to us and boarded the "America Maru," of the Toyo Kisen Kaisha Line, Saturday, September 28th, at ten o'clock in the forenoon, and an hour later the anchor was lifted and the staunch ship steamed out of the harbor with the compass pointed to Honolulu, its first and only resting-place, on the way to its destination, San Francisco.

Among the thirty-three first-class passengers were quite a number worthy of more than passing notice: Lieutenant-Commander Brannersreuther and wife, Major von Terrace, Lieutenant von Versen, and Field Post Director Hagedorn of the German Expedition in China, Baron Wrangell of the Imperial Russian Guard, Mr. Aoki, the postmaster of Japan; the director of telegraphs and telephones of Japan, and a distinguished Chinese scholar on his way to America to take charge of a large guild. The lieutenant-commander had served three years as harbor captain at Manila, and was recovering from a serious attack of empyema

that had necessitated a number of operations. The sea voyage proved most beneficial, as a marked improvement could be noted from day to day. He gained fame during the Spanish-American war by adding Guam to our Pacific possessions without firing a gun. His estimable and highly cultured wife is the granddaughter of the late Mr. David Paul Brown of Philadelphia, the most distinguished lawyer of the American bar. The Chinaman, who could not speak a word of English, was a source of much amusement in the dining-room. He was always the first one at the table and the last one to leave it. The knife and fork were strange implements to him. He was used to chopsticks, and it took several days before he acquired the necessary dexterity to handle the modern eating implements properly. European meals were something new to him, and he showed a great fondness in spicing his food by treating it with the contents of all the bottles of the two casters within his reach.

The time of sailing was very opportune for the passengers to enjoy the first meal, the one o'clock tiffin. As the vessel was gliding over the smooth water of the harbor all of the passengers were joyful and happy in anticipation of a quiet voyage and the first meal that awaited them. With the welcome din of the gong they all took their places in the dining-room. The tiffin, like all first meals on ocean steamers, was excellent, and every one did justice to it, few of them apprehending that they were simply taking in a store of food for the hungry fish that were waiting for their meal outside of the limits of the bay. There are two things that often annoy and test the courage and patience of the ocean voyager—seasickness and snoring.

Seasickness is one of the strangest of all diseases.

It shows no respect for social position, nationality, age, or sex. It deals with all alike. The present treatment holds out no hope of encouragement. It begins in the head, but finally concentrates all of its viciousness on a dear and highly valued part of the body—the stomach. It does not kill, but it does torture its victims in the most cruel manner, often to the extent of creating a desire for death. From the very fact that it does not aim at life it excites no sympathy. It is a disease that shows its horrid face as soon as the ship begins to prance, dance, pitch, and rock on the restless water. Passengers who are subject to this evil are, as a rule, very unwilling to acknowledge their weakness. They resist this treacherous tormentor as well and as long as they can, and when they finally succumb, they are not in a communicative mood. From the appearance of the passengers at meal time and later on deck it was very evident that all of them had made up their minds to fight the dark monster with a will and determination that augured victory on their part. The writer, owing to conditions for which he is not responsible and for which he takes no credit to himself, is proof against this ailment, even when the sea does its best to punish the most refractory. He hates a lazy sea, and his pleasures augment with the growing waves. He has a constitutional dislike to the immense ocean ferry-boats and enjoys the rocking and pitching of a small, trim, lively steamer. The stiff breeze and the dark clouds in the east, which we felt and saw as we left the bay and entered the ocean, made him hopeful that he would soon be given an opportunity to study the moral and physical aspects of seasickness in all of its phases and stages. He was not disappointed in his expectations. For once his prognostications

matters of fact, as interesting to him as it was trying to those who so unwillingly were made to surrender to the inevitable. Immediately after tiffin the passengers assembled on deck, made themselves comfortable in their reclining chairs, intent upon seeing the Japanese coast disappear from sight, never dreaming of what was in store for them.

From a respectable distance I took particular notice of two ladies in order to study with the necessary care the first symptoms that initiate the humiliating disease. One of them, a young lady dressed in fashion and wearing a jaunty sailor's cap, flung herself into her luxurious steamer chair, covered herself with a rich rug, carefully tucking it around and underneath her dainty feet, opened one of the recent novels, and began to read. As the ship commenced to take her modest gymnastic exercise, the eyes heretofore fixed on the pages of the interesting novel would occasionally drift away and take in the surrounding picture of snow-capped waves and dark gorges between them. The interest in the book gradually waned, the lips and cheeks lost their rosy color, the eyes became meaningless and staring. The march of the disease was rapid in this case. The book dropped on the deck, the arms lay powerless on her lap, pearls of sweat gathered on the marble white forehead; she commenced to yawn, lost all interest in her surroundings, and was only too willing to follow her escort to her cabin. What happened there is not difficult to surmise. When calm was restored at the end of the second day she appeared again on deck, but she had become a different woman. She was pale and haggard, and in dress and behavior showed that she had been under influences that beget an humble spirit.

The other lady that I watched from the same lookout and with equal interest had reached the autumn-

time of life, as shown by the snow-white hair, but she still retained the vigor and vivacity of youth in her face. She was accompanied by her husband, who looked young enough to pass for her son-in-law. Both of them were evidently going through a second experience in married life. This little woman, neatly but plainly dressed, must, of course, be courageous under the circumstances. She was a regular talking machine when in a normal condition. She made acquaintances quickly. Her cheery voice was heard all over the deck. She felt in need of a little exercise after the substantial meal. She laughed at the threatening waves. She walked the deck after it commenced to dance under her little feet. The promenade did not last long. She sank into a steamer chair. She showed no longer any disposition to talk. Her chin found a resting-place on the heaving bosom. The ruddy face turned pale, the breathing shallow and frequently intercepted by yawning. Her attentive husband comprehended the situation, and tenderly assisted her down to her cabin, where she remained for days until the cause of the annoying affliction was removed.

The third central figure of seasickness on this trip was a man built of iron. He never dreamed of such a thing. He saw one after the other of the passengers leave the deck with blanched faces, and smiled at their misfortune. He could not and would not get seasickness. He enjoyed his tiffin; he was one of the few to take the lion's share of the still more elaborate dinner. He was among the first at the table and the last to leave it. When his appetite appeared to fail it was encouraged by half a bottle of wine. He was fully determined upon receiving the value of the somewhat expensive fare, and here was the best opportunity to begin. Eat he must and eat he did. A good cigar is the greatest

delight of the smoker after a substantial meal. The smoking on deck in a stiff breeze is not much of an enjoyment. He retired to the smoking-room. The cigar was a big one and as black as coal. It was lighted and with a grunt of utmost satisfaction he took his place on one of the sofa seats. I kept my eye on this man with a fair expectation that the increasing motion of the ship sooner or later would change the program in his case. My guess again proved a straight one. The vigorous puffs which initiated the smoking became less and less frequent and lost in force in proportion. At first he attended to the ashes, but soon became careless, and the falling dark ashes soon began to obscure the faultless shirt bosom. I knew his time was approaching. After smoking about one-third of this cigar the light went out, owing to neglect on his part. He turned pale, placed the cold cigar on the ash pan, looked around to see if any one noticed the change that had taken place in his case, and quietly sneaked out of the room and in uncertain steps sought the privacy of his cabin.

This cabin was within hearing distance of mine, so I had no difficulty in following the further progress of his case. The violent retching and the distressing groans left no doubt what followed. The smell of vinegar that issued from his cabin was the best proof that tiffin, dinner, and wine were lost. The violent ringing of his cabin bell kept the steward in motion. If I had heard these pitiable groans under any other conditions I should have felt it my duty to come to his relief, but as it was I made myself an unseen spectator of what was going on in that cabin that night.

Seasickness is not satisfied with the mere emptying of the stomach. It makes the stomach feel it contains something when it is empty, and the retchings of an

empty stomach are much more distressing than when it contains something that has become obnoxious to it. This was the case with my neighbor. I heard the cabin bell often, promptly answered by the attentive steward. I heard him retch and groan as long as I could keep my eyes open, but as the symptoms showed no abatement I yielded to the rocking motion of the ship and went to sleep. The next morning the steward spent more than the allotted time in that cabin. He found bed-clothes and carpet saturated with the contents of the stomach that played such havoc through the long night. The linen and blankets went to the laundry, and the broom and mops did all they could do in undoing the damage which had been inflicted upon the carpet. That man's stomach, greedy as it was the first day out, was satisfied with beef tea and chicken broth for a number of days until the calm sea again reminded it of its duty. For the same length of time the cigar box in that cabin was not disturbed. Such is seasickness! It reminds us that

The avenging God follows close on the haughty.
—Seneca.

The boisterous sea subsided at the end of the second day, and during the remainder of the voyage the weather was ideal.

Friday, October 4th, we passed longitude 180° W. at four o'clock in the afternoon, an event which added one day to our trip, if not to our lives. Next day we made the land early Friday, October 4th, and found on consulting the calendar at San Francisco that we had made no mistake in doing so. Sunday afternoon, October 6th, we passed Bird Island. This island belongs to the United States. It consists of pyramids of rocks and is sterile, but of some commercial value, as upon it are deposited large beds of guano, which is shipped to

Honolulu to a firm engaged in the manufacture of fertilizers. A number of flocks of ducks seen in its neighborhood showed that these birds seek this island as a summer resort and breeding place. We sighted the mountainous coast of Oahu Island early next morning, and landed at Honolulu at noon. As far as I was concerned the trip around the world was completed here, as I was again on familiar ground, having spent three weeks on the islands of Hawaii two years ago. As the steamer came up toward the dock a number of dusky Hawaiian boys from fourteen to eighteen years of age, with a breech-cloth as the only excuse for dress, met us, willing and prepared to demonstrate their native art of diving. All the passengers had to do was to throw a silver coin into the water, when the one nearest the place where the coin dropped would make a plunge in the direction of the falling coin and never failed to bring it to the surface in less than three minutes, display it to the spectators by holding it up with one of his hands, and then deposit it for safe keeping between his teeth. As the water at no place is less than twenty-five feet in depth, the aquatic performance of these native boys was certainly a marvelous feat, and the interested passengers showed their liberality by giving them financial encouragement in prosecuting their sport. Those of our party who had never seen Honolulu before felt that they had in reality reached home when they saw the stars and stripes floating over the government buildings; in fact, we were now on American soil—soil made American since my first visit to the islands. The stranger who visits Hawaii with the expectation of seeing the natives and of studying their customs and habits will be very much disappointed. The natives have become thoroughly Americanized. The English language and Western

customs have been adopted. The only opposition to Western dress at the present time is manifested by the women, who persist in wearing the free and easy Mother Hubbard gown. The young generation prefers English to the native tongue. It will not be many years before the Hawaiian language will have become obsolete. Civilization has dealt in the same cruel way with the Hawaiians as with the North American Indians in exterminating the race. The mortality among the natives is appalling and appears to be increasing. Tuberculosis in all its many forms is extremely prevalent, and threatens the extinction of the race in the not very distant future. The natives have left their country homes and are congregating in the larger cities, much to their own detriment. They are not particularly fond of work, differing greatly in this respect from the Chinese and Japanese. They are happy with little and appear to find comfort in the sentiment:

It is not the man that has little, but he who desires more, that is poor.—Seneca.

Honolulu has now about 33,000 inhabitants, and a number of material improvements have been made during the last two years, among the most important being an electric tramway and the Moana Hotel on the Waikiki beach. This new hotel is a magnificent structure, luxuriously furnished, and can boast of a splendid table. Its park-like grounds are a great attraction. The grove of giant cocoa palm trees in its immediate vicinity imparts to the place a truly tropical aspect. The surf bathing at Waikiki beach immediately in front of the hotel is probably the best in the world, as the temperature of the water is nearly the same throughout the entire year, and the bottom of the shallow water is sandy and the breakers roll in

toward the shore with the regularity of a clock. The trees and flowers in and around Honolulu are tropical. The royal and cocoanut palms grow to a great height, and the banyan tree spreads its branches over a surface that would afford ample space for a good-sized house. The temperature ranges between 80° and 99° Fahrenheit throughout the year. To the Westerners the climate is debilitating, and most of the merchants and professional men find it necessary to seek a more vigorous climate for several months every three or four years. The well-to-do people own cottages on the mountains near Honolulu, where they find relief from the moist heat of the city.

It is consoling to know that leprosy is on the decrease. Two years ago I visited the leper colony on Molokai Island and found it inhabited by 1,300 persons of both sexes and different ages afflicted with this terrible disease. At present the number does not exceed 800. Segregation is strictly enforced. A person who is declared a leper by a competent board of medical examiners loses his freedom and is at once taken to Molokai, from where recovery or death opens the only way to escape. It was at this leper colony that Father Damien laid down his life for the bodily and spiritual welfare of the poor outcasts. A plain monument in the center of the city of lepers marks the place where his mangled remains are awaiting a glorious resurrection. Brother Dutton, formerly of Janesville, Wisconsin, the co-laborer of Father Damien, still remains at his post, ministering to the mental, physical, and medical wants of the hundreds of unfortunates made prisoners on the island for no other reason than to prevent the further spread of the disease. According to the laws of Hawaii, leprosy severs the marriage tie without any further legal proceedings. The husband or wife can

accompany the leper to the colony, but if the devotion falls short he or she is at liberty to marry again, and the same privilege is accorded to the sick prisoner after he has been made a member of the colony.

The sugar industry of the islands is suffering at the present time from lack of laborers. The Hawaiians will not work on the plantations, the white men are soon incapacitated from the effects of the climate, and the Japanese and Chinese now on the islands are not sufficient in number to answer the demands. The sugar stock is lower than it has been for several years, and there is no prospect that it will rise until the labor difficulties have been set aside. A strong effort is being made to open the doors to Chinese laborers, but it is very questionable whether Congress will make an exception to the exclusion act for the special benefit of her youngest territory. The popularity of Governor Dole is waning, and as soon as the leading politicians agree upon his successor in office we may look for a change in the head of the territorial administration at any time.

The coffee grown in the island of Hawaii is of excellent quality, in fact, it is so good that very little is exported. The business men of the islands have of late been concentrating their energies too much on the sugar interests, and it is to be hoped that the present depression in the sugar market will direct their attention more to the cultivation of coffee and other tropical products. All of our new possessions are sugar-producing countries, and there is good reason to believe that there will be an over-production of this article unless their agricultural resources are utilized to better advantage by investing capital and employing labor in cultivating tropical products that will find an open and more remunerative market. The annex-

ation of the Hawaiian Islands and the possessions acquired from the Spanish-American war have changed completely the political status of the United States. Within three years our country has become an international power, the influence of which is already being felt over the entire world. The purchase of St. Thomas Island from Denmark and the construction of the Nicaragua Canal are the next important political moves that must be made in the near future to make our country what it is destined to be—the strongest international power on earth.

The passengers of the "America Maru" utilized the day at Honolulu in visiting the most interesting places, the shops and market, the Punch Bowl, the Pali, and the Waikiki beach, and most of them dined at the palatial Moana Hotel. We left next day at eleven o'clock in the forenoon with the ship's compass set for San Francisco. The weather was ideal, and Diamond Head, the most conspicuous landmark of Honolulu harbor, disappeared in the distance in less than three hours, and we were again upon the uncertain bosom of the pathless ocean. The route from Yokohama to San Francisco is a lonely one, as we did not see a single vessel during the seventeen-days' voyage except in the harbors and their immediate vicinity. The quiet voyage from Honolulu to San Francisco afforded me an excellent opportunity to make some interesting observations on snoring.

In the beginning of this article I alluded to two afflictions the globe-trotter is subject to, and which often awaken a vivid desire to return to his quiet home. Seasickness is one of them, and is the one I have attempted to describe by giving a pen picture of three cases that I had an opportunity to study from the very beginning of the disease until it reached its

climax. An accurate, clinical study of this distressing disease is more profitable and instructive than the vague speculations regarding its obscure origin and clinical significance of its multitudinous symptoms. This disease has come to stay as long as ships will consent to be pitched and rocked by the angry sea. It comes on slowly, insidiously, and finally centers its force on that organ that is so essential to personal comfort and ease of mind—the stomach. Then, too, it is a disease that shows no respect for age and social position; in fact, it seems to manifest a special grudge against persons who have the greatest reason to value an unimpaired digestion. The victims of this disease do all in their power to resist it, and when finally they have to yield to its wily onslaught the confession that such is the case is made most reluctantly, if at all. The preliminary dizziness and headache are attributed to other causes, and when at last the stomach makes its location known by its crazy actions the indisposition is charged to some indiscretion in diet—ship food, kitchen smell, etc. It is very hard to make these wretched patients make an honest, full confession.

The snorer is a very disagreeable traveling companion, more especially so when he is within reach of the eye and hand of the unwilling, dissatisfied observer. Unfortunately, the snorers are good sleepers. They are almost without exception happy, contented, good-natured people, perfectly at peace with themselves and the outside world. They commit their offenses unconsciously, and when they are reminded of their nightly doings they are even more obstinate in acknowledging the true condition of affairs than the suffering victims of seasickness. In the choice of a companion for the coupe of a sleeping car or the cabin of an ocean steamer the question, "Do you

snore?" or to put it in more genteel and less offensive language, "Are you in the habit of snoring?" is a legitimate one, as a persistent snorer will chase away sleep from the eyes of his unfortunate companion more effectually than the whistle of the locomotive or the fog-horn of the ocean steamer. How many of the habitual snorers have the courage to answer such a fair and plain question with an unhesitating yes? Very few, indeed. Some are unwilling to acknowledge this weakness because they have never heard themselves snore; others are only too anxious to hide this nightly habit as long as possible, bringing into aid every possible means to evade detection. Of the two classes the latter are to be preferred because they are willing to go to some trouble not to disturb their neighbors. The art of snoring is unpopular; it excites the temper of the passive listener, and is a source of humiliation to the actor when he is made aware of his nightly unconscious performances. There are as many kinds of snoring as there are notes in the scale of music. The confirmed snorer imitates the buzz-saw. He lies on his back, mouth wide open, the muscles of the face are paralyzed, flopping to and fro like the sails of a ship during a calm, the tongue falls back, and the air playing on the paralyzed structures as it passes into and out of the air passages brings out the discordant notes that penetrate the very marrow of the innocent, distressed listener. The grating sounds of the Chinese hand sawmill are a lullaby compared with the rasping sounds that escape from the mouth of the phlegmatic habitual snorer. The ear-splitting sounds from the human sawmill lack regularity; they are devoid of anything like rhythm. For a moment the snorer is silent, his lips turn blue, and when you entertain the hope that he has drawn his last breath or that sleep will go

on as it should, a deep gasp accompanied by a terrible snort revives him and he relapses into the same hopeless condition. Awaken such a man or turn him on his side and you are rewarded for your efforts by a few minutes of rest to be followed regularly by the same distressing stertorous sounds. Snorers never die as long as they can keep their room-mates awake by their unearthly noise. The lips may become livid, the paralyzed tongue may block the upper air passage, when impending death from suffocation is chased away by a succession of deep gasps which start the machinery of life anew, and the accustomed snoring goes on indefinitely. I have been under the painful necessity many times of spending night after night in close proximity to old, confirmed snorers who were honest enough to acknowledge their failings when asleep, and who were kind enough to ask me to awaken them whenever my patience should come to an end. I have on different occasions made use of the liberal offer, but I have never yet heard one of them say, "I thank you," when I took the trouble to bring them to consciousness. The confirmed snorer enjoys his deep sleep too well to sacrifice it for a moment for the benefit of his wide-awake companion without some sort of a protest. It is a thankless task to interfere with a snorer. In the light of right such interference in desperate cases is justifiable, but if resorted to too often it will not add anything to the tie of friendship, and contributes but little to the comfort of the impatient sufferer, as a momentary cessation of hostilities will be sure to be followed by an aggravation of difficulties. The snorer will persist in sleeping and snoring in spite of the most trying obstacles. Irritating as this kind of snoring may be to the sensitive, sleepless ear of the innocent listener, it does not compare with another

kind of snoring that is the greatest terror in the sleeping apartment. The sound bears a close analogy to a diminutive steam whistle. I have had many unwelcome opportunities to study this kind of snorers. They are generally fleshy men with good appetites and peaceful consciences. Their sleep is less profound than that of the imitator of the sawmill. The mouth puckers and is thrust forward into the shape of a small cone, leaving only enough space for the entrance and escape of enough air to supply the requisite amount of oxygen to maintain life. The cheeks aid respiration by contracting and expanding actively like a pair of bellows, forcing the air into and out of the mouth with a whistling, blowing sound that annoys the impatient, wide-awake neighbor far more than the more noisy and irregular sawing sounds of the partially asphyxiated snorer. If it becomes necessary to choose a snorer, give me the one with a loud, sawing, rasping sound and assign the human nocturnal steam whistle to my worst enemy.

The voyage from Honolulu to San Francisco was made in six days. As we approached the Pacific coast the warm southeast wind gave way to the bracing northwest breeze that so regularly sweeps the Golden Gate at eleven o'clock in the forenoon and forces upon the people of San Francisco the necessity of wearing shawls and overcoats throughout the entire year. The sight of the Golden Gate, with the rugged, bare, brick-colored hills on each side of it, brought joy combined with sorrow to the hearts of all. We were delighted to step again on the soil of God's country; we felt more keenly than any time before the irreparable national loss caused by the premature death of the third martyr president, the idol of the nation, the man without an enemy, the noble William McKinley.

After serving the nation faithfully for more than four years as its chief magistrate, and soon after he entered upon the arduous duties of his second term and in the full enjoyment of a firm confidence shared by both political parties alike, he was struck down by the bullets of his assassin, a demon in human form. The indignation against the scum of society, of which this fiend is a cursed example, is general abroad as well as at home. To the executive life of the distinguished dead we may well apply the sentiment:

*High rank, a heavy burden weighs him down.—
Seneca.*

In the hour of this heartfelt national grief we must find consolation in the fact that the exalted position made vacant by the death of the late President was promptly filled by a man who by birth, education, and training is eminently qualified to guide the ship of state with the same good judgment and firmness as characterized the executive life of his predecessor.

During our long journey we saw many splendid harbors, but none of them can compare in size and beauty with the San Francisco Bay. The custom-house service of the port of San Francisco is conducted by men and women who are beyond the reach of bribes. They examine and appraise dutiable articles with the utmost care, regardless of the declarations made by the passengers. The results of these examinations do not always correspond with the actual value of the articles imported, but the errors, if any are made, are errors of judgment in appraising goods, the value of which is unknown to them, and as such are pardonable. The fresh sea breeze, which set in at the accustomed time, did much in relieving the languor that so constantly follows a long voyage through a tropical climate. The excellent hotels

served their purpose well as substitutes for the narrow cabins, and little time was lost in patronizing the luxurious tables of the many first-class restaurants. It is not amiss to say that San Francisco has the finest restaurants of any city of its size. San Francisco is destined to become a great city. The acquisition of Hawaii and the Philippine Islands and the construction of the Nicaragua Canal will give it a commercial importance equal to that of Chicago and New York.

The Golden Gate Park is, in my opinion, the finest park in the world. It has no equal in its location, and the city has spared no expense in combining natural beauty with art. California is the land of fruit and flowers. The crimson strawberries, the ruddy raspberries, the purple figs, the yellow, velvety, red-cheeked peaches, the golden oranges, the blue plums, the immense clusters of roseate grapes that ornamented the fruit stands are gems of the fruit gardens and vineyards that cannot be found in such combination and at this late season in any other country in the world. The San Francisco people work less and enjoy themselves more than the more ambitious, restless citizens of Chicago. We might appropriately apply to them:

He was his whole lifetime a man of pleasure; and those who are, do not enrich their heir; yet they leave this praise behind them: "While he lived he lived well."—Tacitus.

While in their race for wealth, influence, and fame, the Chicagoans have not yet learned the truth of:

Golden palaces break man's rest, and purple robes cause watchful nights. Oh, if the breasts of the rich could be seen into, what terrors high fortune places within.—Seneca.

We spent two days very pleasantly in this gay and beautiful city, and resumed our journey homeward at ten o'clock Thursday morning, October 17th, by way



